

Installation and User manual



QNVR04P/08P HD Network Video Recorder with PoE



QVNR04P/08P installation and user manual

Before You Begin

Read these instructions before installing or operating this product.

Note: This installation should be made by a qualified service person and should conform to local codes. This manual provides installation and operation information. To use this document, you must have the following minimum qualifications:

- A basic knowledge of CCTV systems and components
- A basic knowledge of electrical wiring and low-voltage electrical connections

Intended use

Only use this product for its designated purpose; refer to the product specification and user documentation.

Customer Support

For assistance in installing, operating, maintaining and troubleshooting this product refer to this document and any other documentation provided. If you still have questions, please contact Norbain Technical Support and Sales:

Norbain SD Ltd, 210 Wharfedale Road, IQ Winnersh, Wokingham, Berkshire RG41 5TP, England.

UK +44 (0) 118 912 5000

Note: You should be at the equipment and ready with details before calling Technical Support.

Conventions Used in this Manual

Boldface or button icons highlight command entries. The following **WARNING**, **CAUTION** and **Note** statements identify potential hazards that can occur if the equipment is not handled properly:



*** WARNING:**

Improper use of this equipment can cause severe bodily injury or equipment damage.



**** Caution:**

Improper use of this equipment can cause equipment damage.

Note: Notes contain important information about a product or procedure.



This apparatus is manufactured to comply with the radio interference.

A Declaration of Conformity in accordance with the following EU standards has been made.

The manufacturer declares that the product supplied with this document is compliant the provisions of the EMC Directive 2004/108/EC, the CE Marking Directive 93/68 EEC and all associated amendments.

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive: 2011/65/EU, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

* This symbol indicates electrical warnings and cautions.

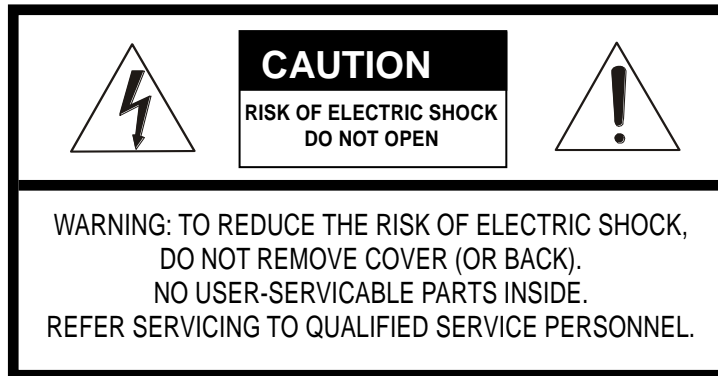
** This symbol indicates general warnings and cautions.

NORBAIN SD LTD reserves the right to make changes to the product and specification of the product from time to time without prior notice.

WARNINGS AND CAUTIONS:

To reduce the risk of fire or electric shock, do not insert any metallic objects through the ventilation grills or other openings on the equipment.

CAUTION



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Overview

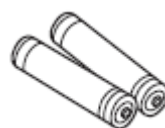
1. Contents of Packing



AC Adaptor



Remote Controller



**Battery
(AAA x2)**



Mouse



**Installation
CD**

2. Features

• Convenience

- User-friendly GUI (Graphical User Interface)
- Easy-to-use menu structure
- Easy-to-use recorded data search (Time, Date, Motion, and Alarm)
- Easy-to control via IR remote control and USB 2.0 mouse.

• Stability

- Auto restart after power interruption
- DB structure offers data stabilisation and better storage utilisation

• Expandability

- Remote NVR's can be controlled using the supplied software client viewer.

• Technology

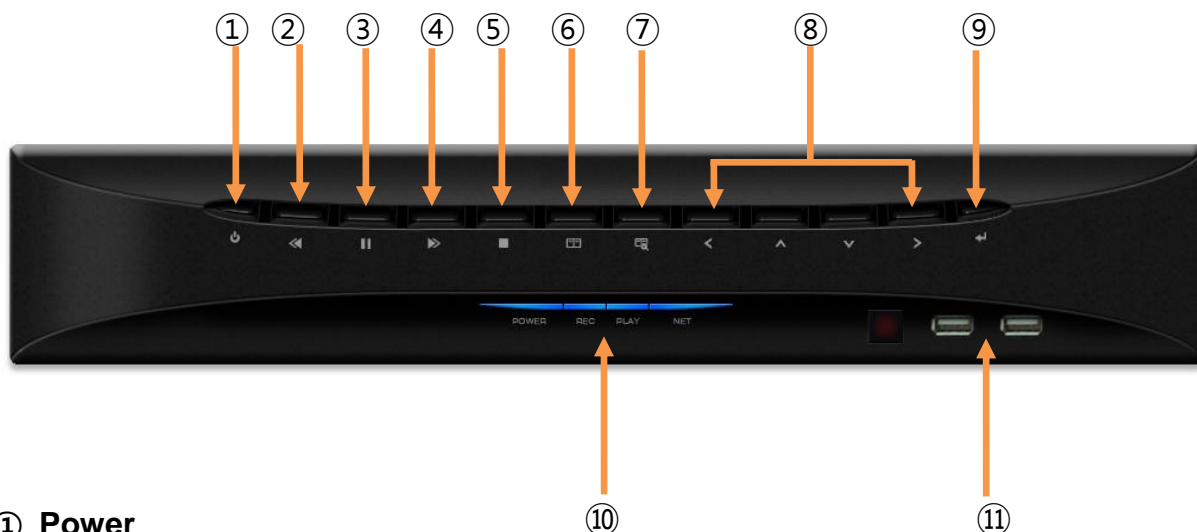
- Embedded LINUX OS
- Multi-Decoding (H.264/MPEG4/JPEG)
- High-resolution & high-quality H.264 algorithm
- Uses watermarking & scrambling technologies,

• Functionality

- Variable recording function (normal, alarm, motion, schedule)
- RS485 Telemetry
- Full channel real-time monitoring
- Live monitoring, recording, playback, backup, remote access simultaneously
- Multi channel playback
- Variable events notification to e-mail, buzzer or PC Client system

Installation

1. Front Panel Controls



① Power

System Power On/Off

② Rewind (◀◀)

Reverse play of recorded data. Press again to enter fast rewind mode in play mode.

③ Pause (||)

To freeze picture on playback mode and live mode.

④ Forward Play (▶▶)

Playback of the recorded data. Press again to enter fast forward mode in play mode.

⑤ Stop (■)

To stop playback and go back to live mode.

⑥ Menu

Displays the menu on the screen

⑦ Search

Entering search mode

⑧ Arrow Buttons

Moves the cursor while in menu mode

⑨ Select

Menu selection

⑩ Indicator

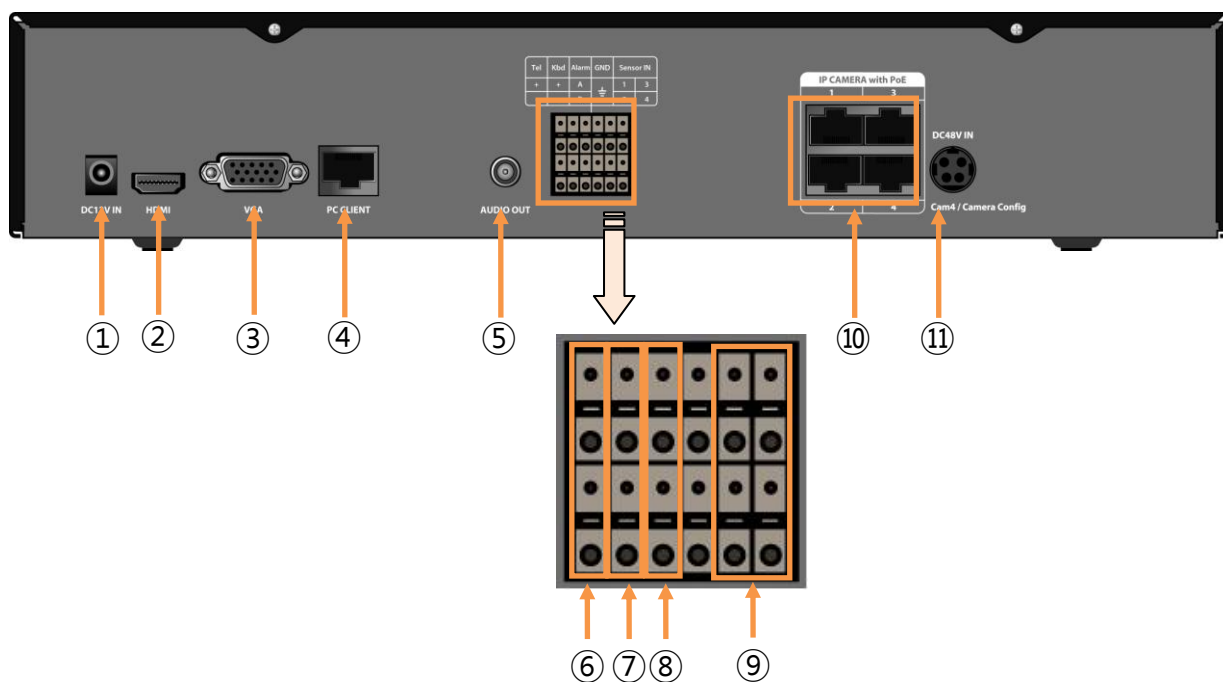
- POWER : System Power On/Off (When power is on, the light will be illuminated)
- REC : Recording status (When recording is on, the light will be illuminated)
- PLAY : Playback status (When playing is on, the light will be illuminated)
- NET : Network status (When network is connected, the light will flash)

⑪ USB Ports

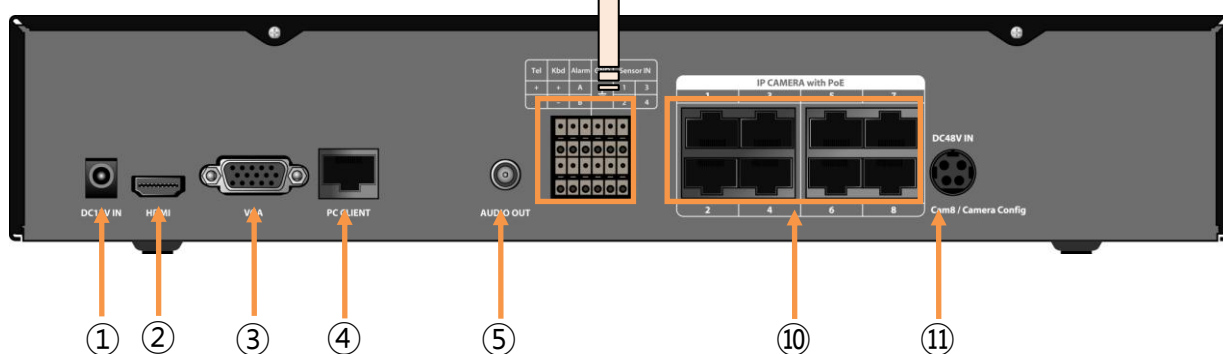
USB connector for mouse control & downloading to USB memory.

2. Rear Panel Connectors

[QVNR04P]



[QVNR08P]



① DC 12V IN

DC 12V input for NVR

② HDMI

HDMI output port (1080p)

③ **VGA**

VGA video output for main monitor (1024x768 to 1920x1080)

④ **Network Port for PC Client**

Connecting to the PC through Internet or LAN

⑤ **AUDIO OUT**

Audio output

⑥ **TEL (PTZ Camera Controller)**

Serial Communication for Pan / Tilt Camera

⑦ **KBD (Keyboard Controller)**

Serial Communication for P/T/Z Control Keyboard

⑧ **ALARM**

Alarm(relay) output port

⑨ **SENSOR IN**

4 Sensor input ports

⑩ **Network Ports for IP Camera (QVNR04P: 4 Ports , QVNR08P: 8 Ports)**

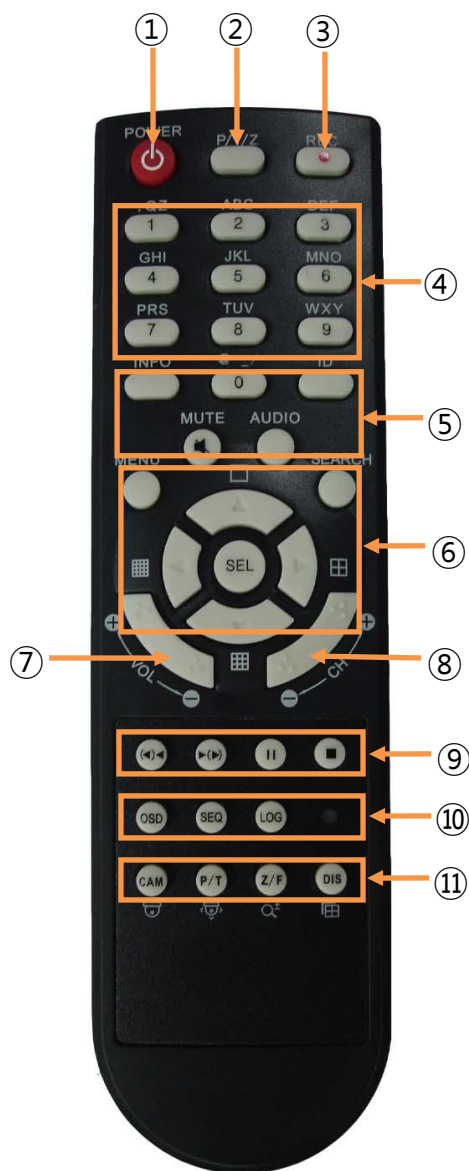
Connecting to the PoE IP cameras

Note: Access to the cameras web pages for set up is carried out via Port 4 on the 4 chn and Port 8 on the 8 chn.

⑪ **DC 48V IN**

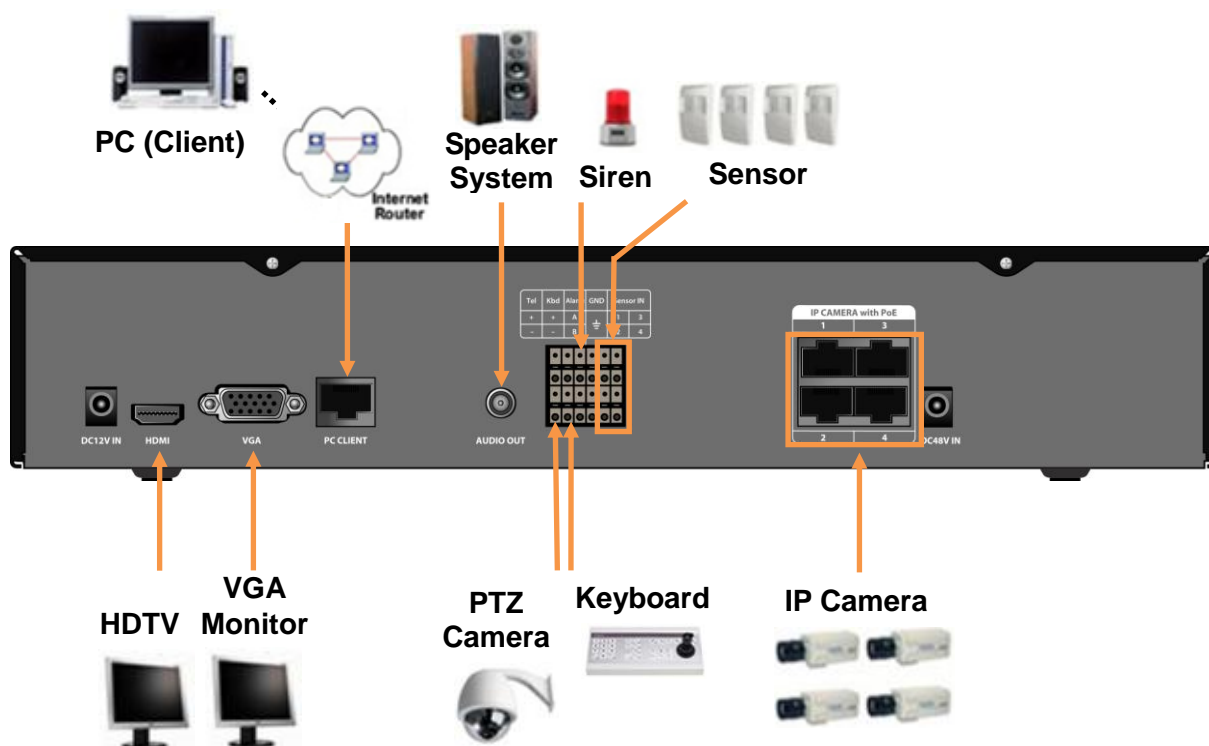
DC 48V input for PoE

3. Remote Control



- ① **POWER** : Power on/off
- ② **P/T/Z** : Entering PTZ Setup menu directly
- ③ **REC** : Start & Stop Recording
- ④ **Numbers and letters** (1 to 9)
- ⑤ **INFO** : Direct access system information
ID : Entering remotecon ID set mode
MUTE : Audio Mute
AUDIO : Switches through Audio channels
- ⑥ **MENU**: Entering system menu
SEARCH: Entering search
ARROW : Left, Right, Up and Down
SEL : Select/Enter
- ⑦ **VOL +/-** : Up, down volume
- ⑧ **CH +/-** : Up, down channel
- ⑨ **(◀)◀** : Reverse play
▶(▶) : Play (or fast forward)
|| : Pause
■ : Stop playback
- ⑩ **OSD** : On Screen Display ON/OFF
SEQ : Sequence operation
LOG : Direct access Log list
- ⑪ **CAM** : Changing PTZ icon
P/T : Pan &Tilt
Z/F : Zoom/ & Focus
DIS : Channel Division

4. Connection Guide



Connecting the monitor

There are two available monitor outputs on NVR.

- HDMI output : Connect to the HDMI port of the HD monitor(HDTV).
- VGA output : Connect to the VGA port of the VGA monitor.

Connecting to a network

Use the ethernet port to connect to remote PC and IP cameras.

- Port for PC Client : Connect to the PC.
- Ports for IP Camera : Connect to the IP cameras with PoE.

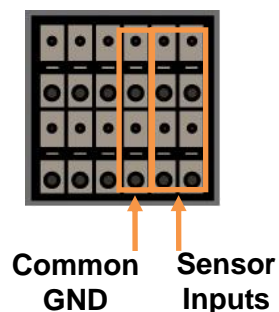
Connecting audio

To listen to live or recorded audio, connect to an amplified speaker system.

- Audio output : Connect to the audio in of the audio AMP.

Connecting to a sensor input

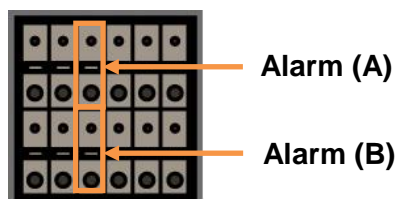
There are 4 individual alarm inputs marked as Sensor In (1-4).



- Sensor inputs : Connect to (+) terminal of a sensor.
- Common GND : Connect to (–) terminals of sensors.

Connecting to a alarm output

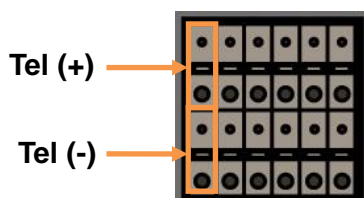
The DVR can activate external devices such as buzzers or lights using the relay.



- Alarm A : Connect to (+) terminal of buzzer or light.
- Alarm B : Connect to (–) terminals of buzzer or light.

Connecting to a PTZ camera

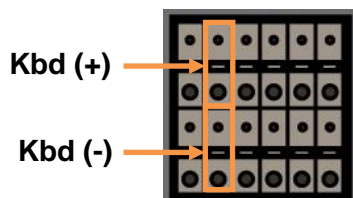
This RS485 connector can be used to control Pan / Tilt / Zoom camera.



- Tel (+) : Connect to RS485 Rx(+) of PTZ camera.
- Tel (-) : Connect to RS485 Rx(-) of PTZ camera.

Connecting to a remote keyboard

This RS485 connector is for a control keyboard.



- Kbd (+) : Connect to RS485 Tx(+) of the keyboard.
- Kbd (-) : Connect to RS485 Tx(-) of the keyboard.

5. Turning on the NVR

1. Connect the AC adaptor.
2. Connect IP camera cables.
3. Connect a network cable and a monitor cable.
4. Plug in and wait until the main screen is displayed on the connected monitor; this process may take a couple of minutes.

Operation

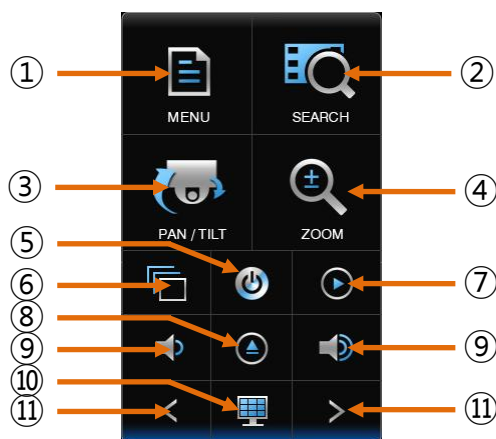
1. Navigation

You can navigate the on screen menus using the front panel buttons, remote controller or mouse.

1-1. Mouse Control

Right clicking the mouse brings up the following popup menu.

- ① Setup Menu
- ② Search Menu
- ③ PAN/Tilt Menu
- ④ Focus/Zoom Menu
- ⑤ Power Button
- ⑥ Sequence Button
- ⑦ Playback Button
- ⑧ Eject Button
- ⑨ Volume Up/Down Button
- ⑩ Multiscreen Display Button
- ⑪ Channel Up/Down Button



1-2. Menu Navigation

To enter the Setup menu, the user has to have the required access rights and be logged on. Press the Menu button or right click with mouse on screen and select the menu icon. The following screen will be displayed asking for password.

- ① Select the user ID.
- ② Enter the password.
The default password is 00000000(8 zeros).
- ③ Press OK, the setup menu will be displayed on screen.



All menus are navigated around using the Left/ Right/ Up/ Down and the Select button or mouse.

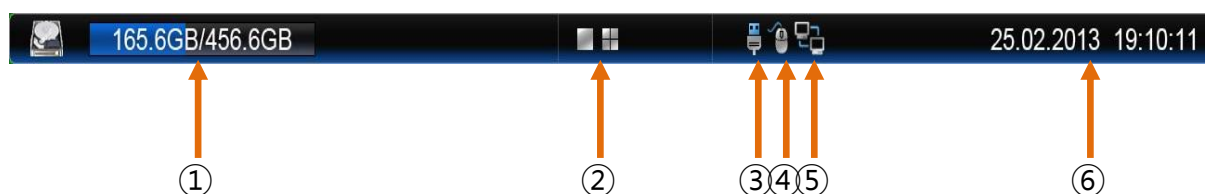
To step back out of the menus, press MENU button or click the right button of the mouse.



2. Monitoring


2-1. OSD Description

The Status Bar on screen shows HDD capacity, network connection, current time, etc.



- ① HDD capacity : Used capacity / Total capacity
- ② Multi-screen Display icons : Single/ 4 way
- ③ USB memory connection
- ④ Mouse connection
- ⑤ Network connection
- ⑥ Current Date/Time

2-2. Select Channel

Use the Multiscreen display button () on the popup menu to select the display mode.



Single Display



4 way split Display



9 way split Display
(HN1083 only)



Also you can use the DIS button on the remote controller to change the display mode. Display switches in the following order when the DIS button is pressed.

Single Channel → 4 Channel → 9 Channel → Single Channel

2-3. Digital Zoom

Left-click and drag the mouse to set the desired area for zoom in live or playback mode. (It is available in single screen mode.)



Click the left button on the mouse.

The screen will change to the zoomed image with a small image displayed in the upper right hand corner of the screen

The red box on the small picture indicates the position of the magnified image.



← Red box

You can change the magnification of image and move the position of the magnified image, by rotating the mouse wheel

Drag the image to move the position of the magnified image.

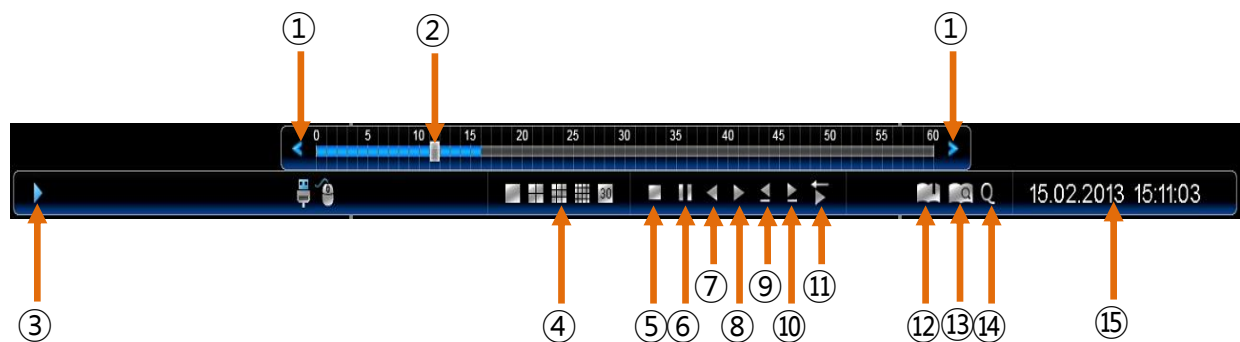
Click the right button on the mouse to return to the original image.

3. Playback

Click the right button on the mouse, the popup menu will be displayed on screen.
To begin playback, press the Play button on the popup menu.

3-1. OSD Description

The Control Bar on screen shows Playback control buttons, Progress bar, Display mode buttons, Playback time, etc.



- | | |
|-------------------------------------|----------------------------|
| ① Previous/ Next time buttons | ⑨ Reverse Slow Play button |
| ② Time Bar | ⑩ Slow Play button |
| ③ Playback Speed Display | ⑪ Replay button |
| ④ Display mode buttons (1/4/9/16ch) | ⑫ Add Bookmark button |
| ⑤ Stop button | ⑬ Search Bookmark button |
| ⑥ Pause button | ⑭ Quick Archive button |
| ⑦ Reverse Play button | ⑮ Playback Date & Time |
| ⑧ Play button | |

3-2. Playback Control

Playback

When the Play button(⑧) is pressed, the unit will play forward at the rate the data was recorded. While in the play mode, the user may change the playback direction, playback speed. To return to play forward operations, press the Play button(⑧).

Reverse Play

To begin reverse playback, press the Reverse Play button(⑦).

Pause

During playback, press the Pause button(⑥). This feature pauses all full screen and multiscreen images. When this button is pressed in the pause mode, the unit will play.

Single Frame Advance

During the pause mode, press the Play button(⑧) to view the frame directly after the frame displayed on screen.

Single Frame Rewind

During the pause mode, press the Reverse Play button(⑦) to view the frame directly before the frame displayed on screen.

Fast Forward

In playback mode, press the Play button(⑧) to switch between various fast play modes such as x2, x4, x8, x16, x32 play.

Fast Backward

In reverse playback mode, press the Reverse Play button(⑦) to switch between various reverse play modes such as x2, x4, x8, x16 reverse play.

Slow Playback

In playback mode, press the Slow Play button(⑩) to switch between various slow play modes such as x1/2, x1/4, x1/8, x1/16, x1/32 slow play.

Slow Reverse Play

In playback mode, press the Reverse Slow Play button(⑨) to switch between various slow play modes such as x1/2, x1/4, x1/8, x1/16, x1/32 reverse slow play.

Stop

To stop playback and return to the live mode, press the Stop button(⑧).

3-3. Playback Search

The user can search the recorded video during playback.

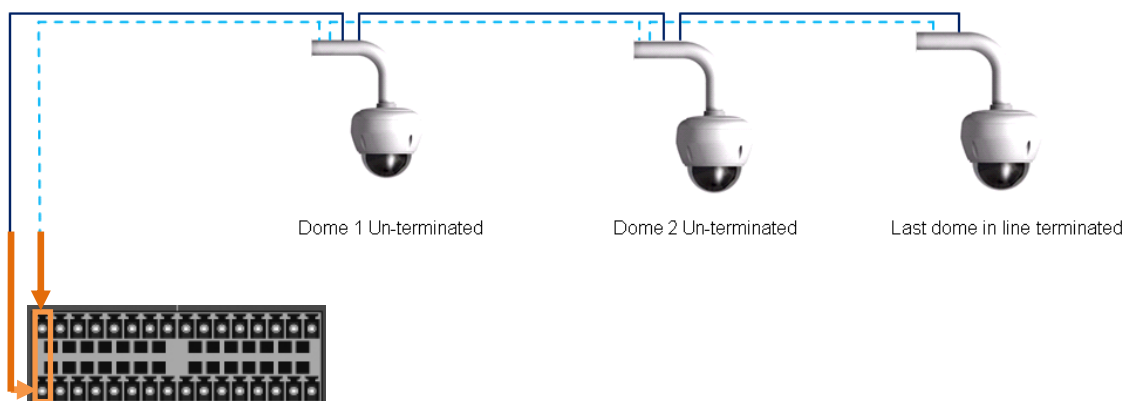
The recorded video is indicated by a colour bar on the time bar(②).

You can use the Previous/ Next time buttons(①) to view if there are more recorded data. Click the mouse at the desired point of the colour bar, you can view the recorded data.

4. PTZ Control

The user can control PTZ cameras via RS485 communication.
The PTZ domes can be wired in a Daisy chain.

Daisy Chain configuration



The telemetry function of NVR can be controlled via 4 different methods:

1. Mouse
2. Remote keyboard
3. Remote controller
4. Software viewer

4-1. PTZ Control by mouse

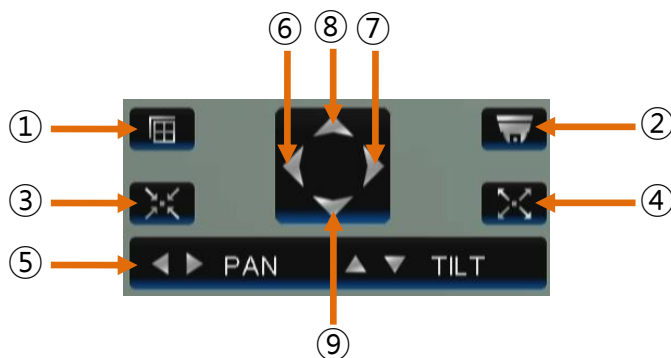
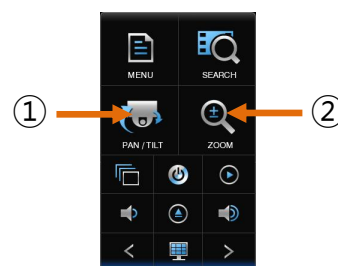
1. Click the right button the mouse, the popup menu will appear.

2. To control Pan/Tilt, click the P/T icon(①).

To control Zoom/Focus, click the Z/F icon(②).

3. The PTZ menu will be displayed on screen.

The user can control PTZ cameras using PTZ menu.



- ① Multiscreen Display : Changing the display mode
- ② PTZ Camera Selection
- ③ Set Preset
- ④ Call Preset
- ⑤ PTZ Mode : The PTZ mode is toggled between Pan/Tilt and Zoom/Focus mode whenever this button is pressed.
- ⑥ Pan Left / Focus Near
- ⑦ Pan Right / Focus Far
- ⑧ Tilt Up / Zoom In
- ⑨ Tilt Down / Zoom Out

[Camera selection]

The PTZ cameras can be controlled in either full screen or split screen mode.

If in split screen mode press the PTZ Camera Selection button(②), the PTZ camera icon will step from one camera to the next on the split screen.

[Pan and Tilt control]

Press the PTZ Mode button(⑤) to enter the Pan/Tilt mode.

To move the dome use the arrows buttons;

Left(⑥) : Pan left, Right(⑦) : Pan right, Up(⑧) : Tilt up, Down(⑨) : Tilt down

[Zoom and Focus control]

Press the PTZ Mode button(⑤) to enter the Zoom/Focus mode.

To zoom or focus use the arrows buttons;

Left(⑥) : Focus near, Right(⑦) : Focus far, Up(⑧) : Zoom in, Down(⑨) : Zoom out

[Preset positions]

1. To store a preset position, move the camera to the required position.
2. Press the Set Preset button(③), the popup window will appear.
3. Enter the preset number to be stored then press OK.

[Call Preset]

1. To recall a preset position press the Call Preset button(④), the popup window will appear.
2. Enter the preset number you want then press OK.

4-2. PTZ Control by remote keyboard

1. Select Dome from the keyboard, ensure the keyboard is in Pan and Tilt mode.
 2. Use the joystick to move the camera.
- * For more detail, please refer to your keyboard manual.

4-3. PTZ Control by remote controller

[Camera selection]

The PTZ cameras can be controlled in either full screen or split screen mode. If in split screen mode press the camera selection button(①), the PTZ camera icon will step from one camera to the next on the split screen.

[Pan and Tilt control]

Press the P/T button(②) to enter the Pan/Tilt mode.

To move the dome use the arrows buttons;

Left(⑤) : Pan left, Right(⑥) : Pan right

Up(⑦) : Tilt up, Down(⑧) : Tilt down

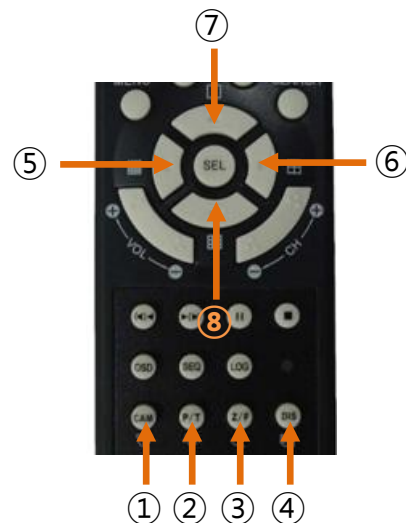
[Zoom and Focus control]

Press the Z/F button(③) to enter the Zoom/Focus mode.

To zoom or focus use the arrows buttons;


Left(⑤) : Focus near, Right(⑥) : Focus far

Up(⑦) : Zoom in, Down(⑧) : Zoom out



4-4. PTZ Control by Client software

While Client software is running select the dome required.

1. Enter the Pan/Tilt mode by pressing the PTZ icon  at the top of the screen.

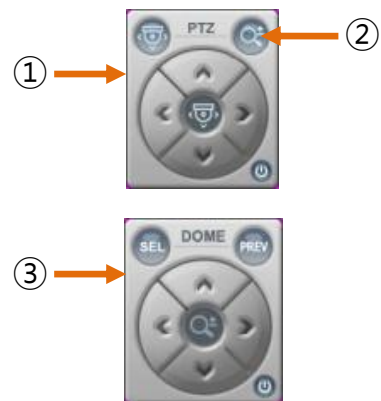
The Pan/Tilt control window(①) will appear.

2. To move the dome use the arrows buttons;
Left : Pan left, Right : Pan right
Up : Tilt up, Down : Tilt down

3. Press the Z/F mode button(②) on the control window to change to the Zoom/Focus mode.

The Zoom/Focus control window(③) will appear.

4. To zoom or focus use the arrows buttons;
Left : Focus near, Right : Focus far
Up : Zoom in, Down : Zoom out



Setup Menu

1. Display

1-1. OSD Setting

On Screen Display Setting: Selecting whether the various information is shown on the screen or not.



Status Bar

The display bar at the bottom of the screen can be set to be permanently on or to disappear after a period of time.

Playback Bar

The control bar in the play mode can be set to be permanently on or to disappear after a period of time.

Camera Name

The camera title can be displayed or not (On/Off)

Event Display

Icons such as recording mode, motion detection can be displays or not (On /Off)

Audio Channel

The channel with the audio can be displayed or not (On/Off)

PTZ Channel

The channel connected with the PTZ camera can be displayed or not (On/Off)

Camera Model Name

The model name of IP camera can be displayed or not (On/Off)

Compression

The type of video compression can be displayed or not (On/Off)

Resolution

The resolution of recording can be displayed or not (On/Off)

Frame Rate

The frame rate of image can be displayed or not (On/Off)

Data Rate

The data rate of image can be displayed or not (On/Off)

PTZ display

When in telemetry mode the on screen telemetry display can be set to be Always on or to disappear after a set period of inactivity 5 or 10 second or Off.

PTZ Timeout

The PTZ operation can be set to time out after a period of time.

PTZ Mode

The PTZ control can be limited by the PTZ mode.

Menu

The menu display can be set to time out after either 1 or 5 minutes.

Password Entry

The password entry display can be set to time out after 1 or 5 minutes.

Blending

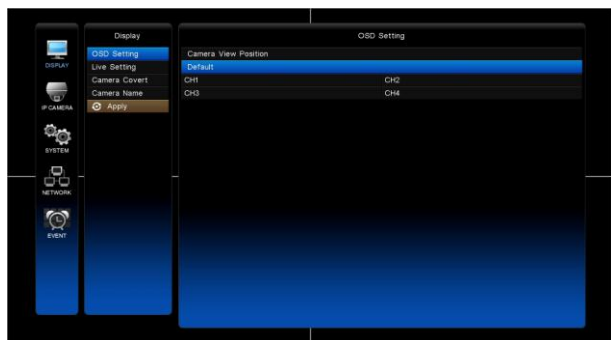
The opacity of the menus and Status bar can be set between 0 and 6, 0 is solid, 6 being very opaque.

HDD

It allows you to see the free space of HDD or remaining recording time of HDD.

Camera View Position

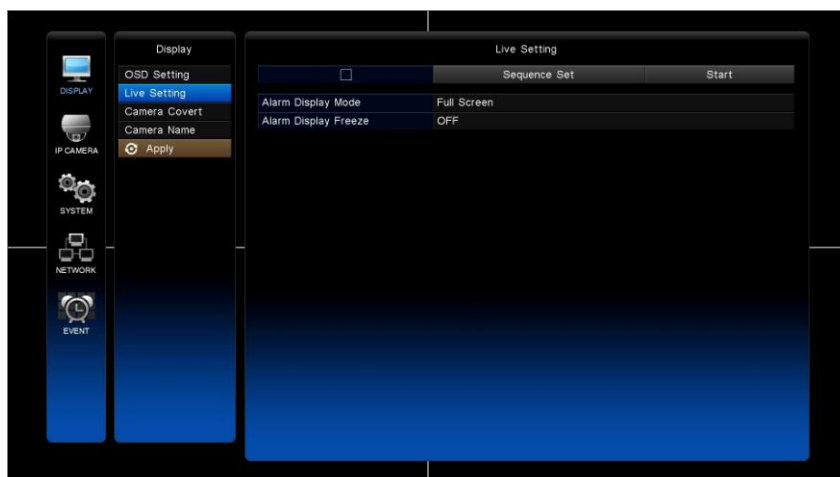
It allows you to change the position of cameras for more efficient monitoring of your own individual location.



NOTE : In order to save any modified setting value, press “SEL” key when “Apply” section is highlighted. This action can be carried out within each Sub Menu.

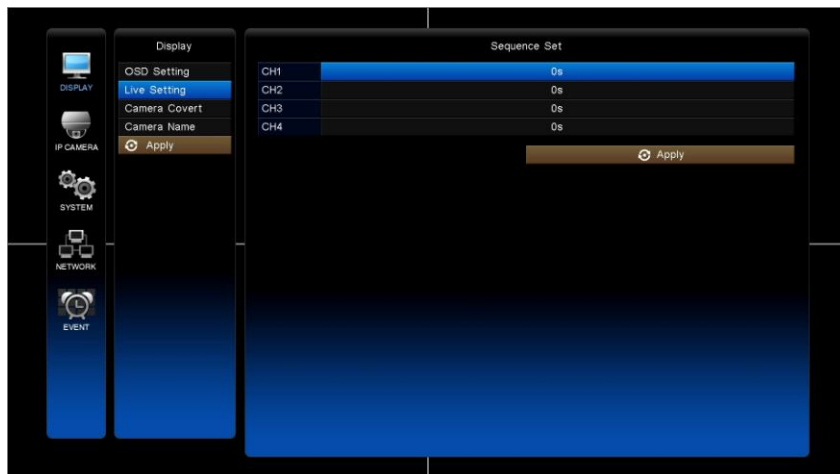
1-2. Live Setting

The live settings are used to set up a sequence of either full screen camera images or multi screen displays



Sequence Set

Use the Up and Down arrows to select either : Full Screen, Quad, 9 or 16 way split sequences. The display will change to allow individual sequence times to be set per channel or split screen option.



Use the select key to turn the cell green and then the Up and Down keys to change the values. Use the right button to move to “Start” press select, the main monitor output will display this sequence.

Alternatively use the mouse to select the sequence required then select the duration.

Click “Start” to turn the sequence on. To interrupt the sequence, simply select any camera.

Alarm Display Mode / Alarm Display Freeze

It allows you to select the way to show channels in which the alarm occurs.

1-3. Camera Covert



Cameras can be hidden from the viewer in live or play back mode.

Select the camera to be made covert using the up and down keys, then press select to turn the camera green, toggle between on and off with the up and down buttons.

Alternatively use the mouse to select the camera and click between on and off.

In order to view covert cameras in Live or Playback, it needs to be turned off in the menus, this is requires the necessary user rights.

1-4. Camera Name



Each camera can be titled using the alphanumeric buttons on the front panel or the mouse. Each title can have up to 29 characters, if there are too many characters to display in 1 line, it will be shown as _... For example, 'FIRST MEETING ROOM' -> 'FIRST MEETIN...'

Use the Up and Down arrows to select the title to be altered, press the select key to turn the title green. Use the left and right arrows to select the character position and use the Alpha-numeric keys to select the character (Similar to SMS on a mobile phone). When complete press the select key to exit.

Alternatively use the mouse to select the title to alter, the on screen keyboard will appear, enter the title followed by the OK button.

2. IP Camera

Depending on the model of your NVR, the performance of supported cameras is different. Please refer to following table, the number of IP cameras listed below are the maximum recording cameras that supported in the certain resolution.

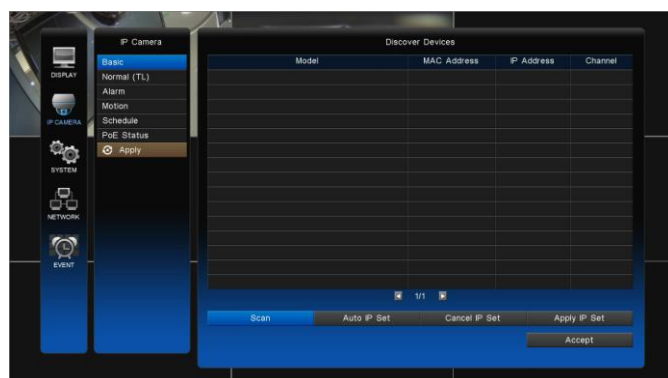
Models	IP Cameras					
	D1		HD 720P		HD 1080P	
	max. Cameras	Total Recording frames	max. Cameras	Total Recording frames	max. Cameras	Total Recording frames
QVNR04P	4	100 ips	4	100 ips	4	100 ips
QVNR08P	8	200 ips	8	200 ips	8	100 ips

Note: Please ensure that all IP cameras are connected to the same network as your NVR and that the network settings for your NVR is properly setup (See **Network Settings**). If the IP cameras are not in the same LAN, please make sure the value of server port and RTSP port in IP cameras are different with each other, and the ports mapping have been made properly.

2-1. Basic



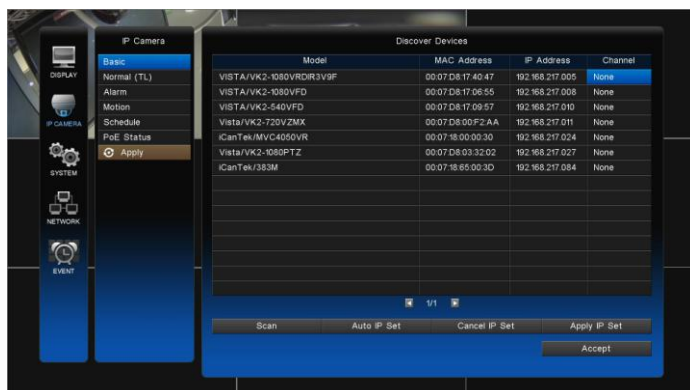
To search the IP cameras connected to the LAN, press “Discover Devices”.



Press Scan, it starts to search IP cameras connected to the LAN

The detected IP cameras will be displayed on the screen after searching.

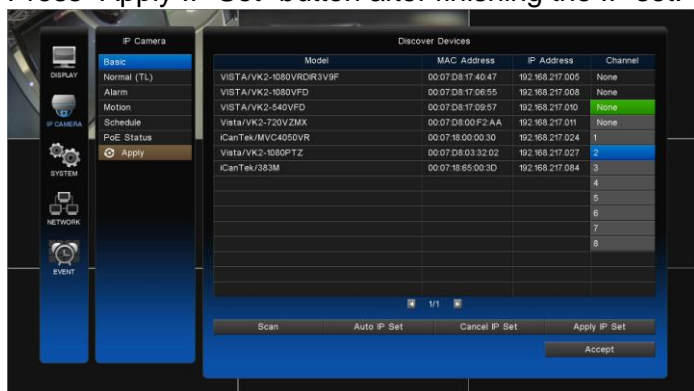
QVNR04P/08P installation and user manual



At first, the IP address of cameras should be changed because it does not correspond to the IP address range of LAN. You can set the IP address automatically or manually.

Press “Auto IP Set” button to change the IP address automatically. If you want to change the IP address manually, click the display area of IP address. The keyboard will appear, enter the IP address.

Press “Apply IP Set” button after finishing the IP set.



You can assign the channel number each IP camera.

Click the display area of channel, the pop-up menu will appear. Select the channel number and press “Accept” button after finishing the channel numbering.

[Setting the Parameters of IP camera]

Most of IP camera parameters are set automatically, but you can change the parameters when they are not correct.



Enter IP camera parameters. This includes the IP address, HTTP port, RTSP port, Protocol, live stream, ID, password of the IP camera. It can support OnSIP IP cameras.

If you want to disconnect to the IP camera, click the “Connected” to configure next to the Status label and it will be changed to the “Disconnected”.

[Setting the Stream for recording]

Stream setting includes the following items.

Stream

Select the stream to record on the HDD, it can be set to 1, 2, 3 or 4.

Compression

Select the encoding format of IP camera, it can be set to JPEG, MPEG4 or H.264.

Resolution

Select the recording resolution, it can be set 320x200 to 1920x1080.
Any resolutions can not be supported depending on the IP cameras.

Frame Rate

Select the recording frame rate, it can be set 1 fps to 30 fps.

Quality

Select the amount of compression applied to the recording, there are six levels ranging from Low to Best.

Click the Apply to save after setting the IP camera parameters.

Note: The stream, compression, resolution, frame rate and quality depend on the performance of the IP camera.

Note: "Record Capacity" shows the remaining frames for recording.
"Display Capacity" shows the remaining channels to display on the monitor.

2.2 Accessing the cameras Web pages

Direct access to the cameras web pages can only be achieved via the IP camera network ports – not via the PC Client port, as this is on a physically separate network.

If all Camera ports are occupied, un-plug port 4 on the 4 way or port 8 on the 8 way and connect the PC or lap top into this port. (Ensure that the PC is set to the same network). Open a browser (I.E.) and enter the IP address of the camera that need configured.

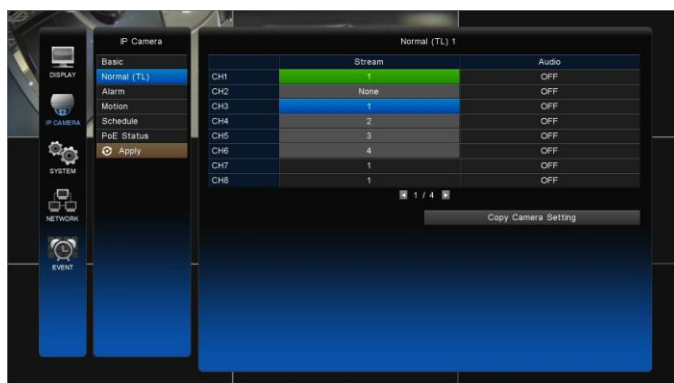
If the camera that was in port 4 or 8 needs it's settings adjusted, swap this with another physical port, make the amendments, Remove the PC and reconnect all cameras.

2-2. Normal (Time Lapse)

This configures the various recording settings per channel in the normal record mode.



Each channel can be individually configured for recording stream and Audio on/off.



Select the stream & audio to record.



Click the “Copy Camera Setting” box to copy the recording settings from one channel to other channels. Select the source channel, and click the target channels to copy.

Click the OK to copy.

2-3. Alarm

This configures the various recording settings per channel in the alarm record mode. There are 4 sensor inputs on the rear of the NVR, these can be used to initiate the alarm record mode.



The stream, audio are set up in the same way as the normal recording.

[Preset on Alarms]

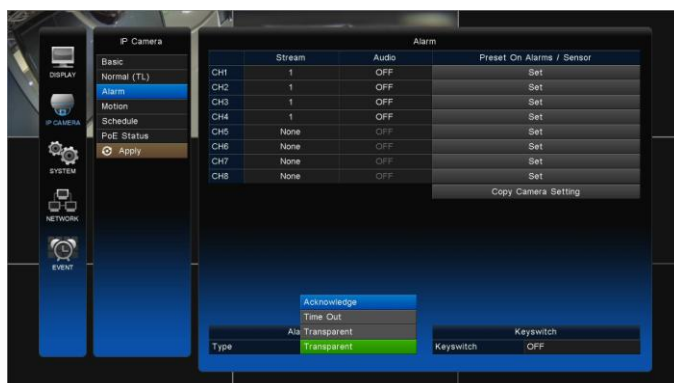
You can enable PTZ camera to move to a preset position when a sensor alarm occurs. A Single Alarm input can be used to drive up to 4 PTZ cameras to preset positions or Preset tours. Click the Set icons below the Preset On Alarms label.



Select the operation(preset or tour) of each PTZ camera when the alarm occurs.

The sensor inputs on the rear panel can be configured to be normally open (N.O), normally closed (N.C) or None.

Note: This function is only available when RS485 telemetry formats are being used.



Alarm Timer

This allows you to set the duration time of alarm;

- Acknowledge: You can stop the alarm by clicking the mouse.
- Time out: The alarm stops over time.
- Transparent: The alarm stops by the condition of sensor.

Keyswitch

A single alarm input can be selected to be a control switch, to turn alarm on or

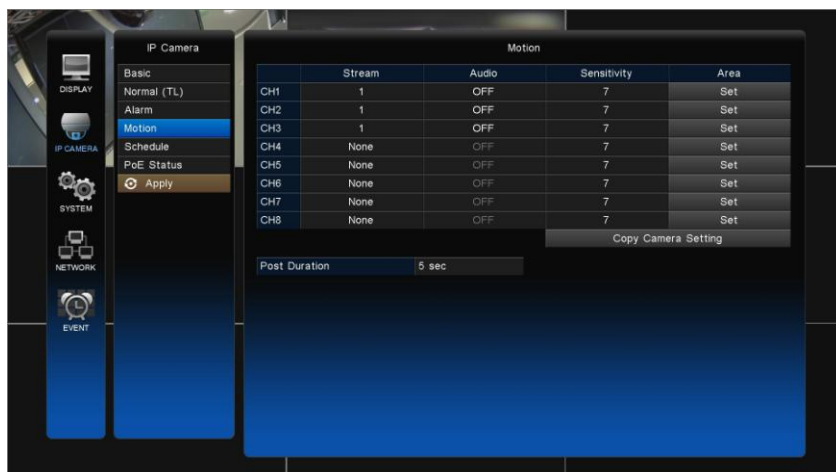
off globally. This allows a final exit key switch to be used to manually arm the inputs.

2-4. Motion

Motion on any channel can trigger recording of that camera.

This configures the various recording settings per channel in the motion record mode.

The stream, audio are set up in the same way as the normal and alarm recording mode.



Sensitivity

The sensitivity of motion detection, there are 10 levels ranging from 1(low) to 10(highest).

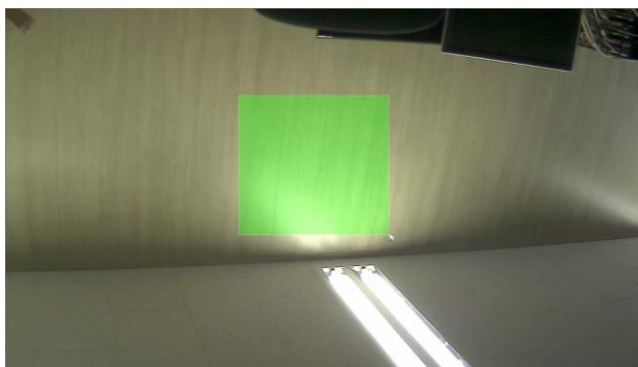
It is recommended that each level is tested to find out which one suits that particular camera site. The motion detection is not recommended for external cameras.

Post Duration

This allows you to set the time in seconds to post-record after the actual motion recording has ended. Up to 99 seconds can be set.

Setting the motion detection area

To setup the motion detection area per channel, click the "Set" button.



The motion detection area allows you to mask out areas where you would like motion to be detected in. You can left click mouse, hold and drag it to mask the motion detection area.

Click the motion detection area, the pop-up menu appears.

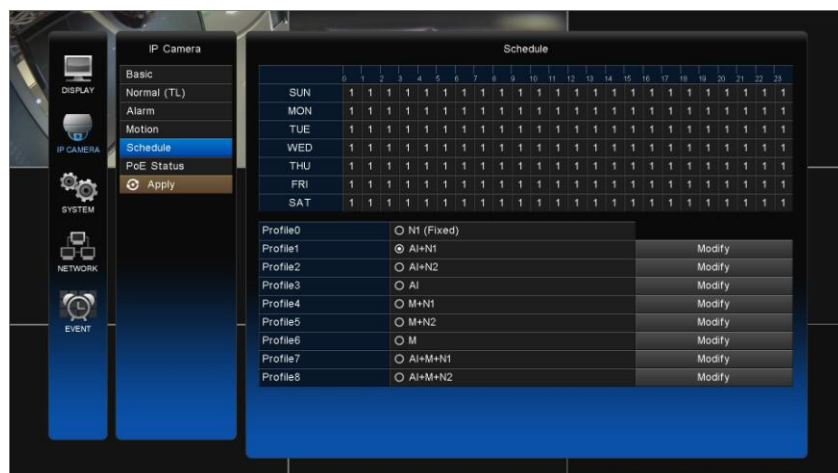


Check the area number to store the motion detection area, click "Accept and Exit".

You can set the motion detection area up to 8.

2-5. Schedule

The Schedule mode allows the operator to tailor the recording characteristics of the NVR to each individual hour of the week. As default the Schedule is set to record in Profile 1 (AI+N1 : Alarm + Normal Time Lapse mode 1)



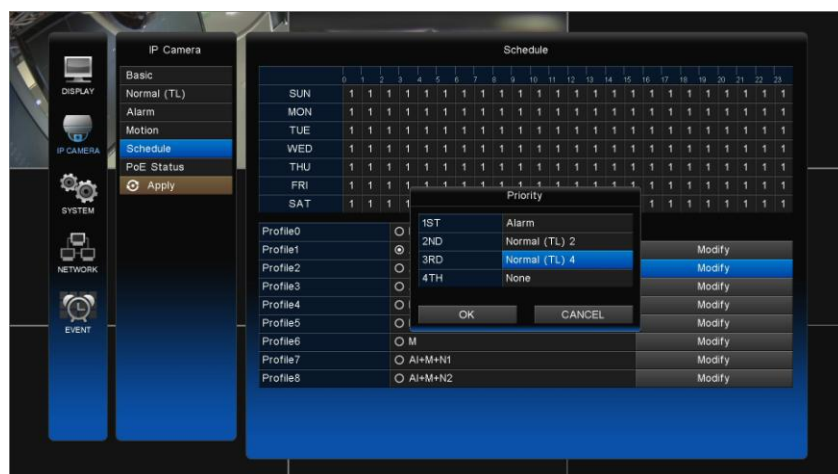
To program the schedule to each sites individual requirements, use either keys on the front panel or more easily via the mouse.

Note: “AL+M+N1” means that the priority settings are Alarm top priority, Motion 2nd and Normal Time lapse1 is 3rd.

Note: Profile 0 cannot be changed. It is always Normal Time Lapse 1 (N1).

[From the mouse]

To amend the Profiles priority settings click on the Modify box, the following screen will be displayed.



Change the priority listing to suit the schedule requirements. Each priority level can be selected to be any of the following:

Alarm, Motion, Normal Time Lapse (1 -4) or None

The record mode at the top of the list is the one that takes priority.

In the example above Alarms will take priority to over all else. So when an alarm input is

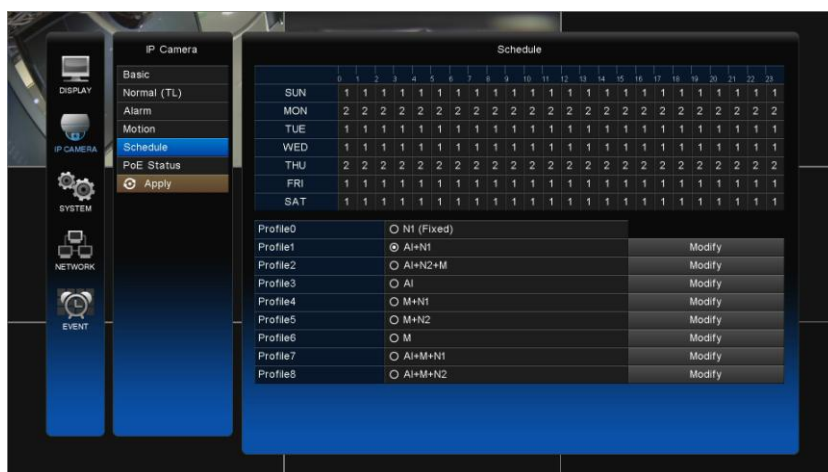
triggered the record setting for that input will be used.

If there are no active alarm inputs, then the NVR is looking for cameras with motion in the scene, when motion is detected then the Motion Record settings will be used.

If there are no active alarm inputs and no motion is detected, the NVR will record using the Normal Time Lapse 1 settings.

Once the priority settings for all the require profiles have been set, then the timetable can be programmed for the periods during which each profile is to be used.

To select the hours of the week that each profile is to be used, click in the tick box for that profile, then click drag on period within the timetable. The Profile number will appear in the selected boxes, as shown in the next table.



Click the “Apply” to save and exit.

[From the front panel]

Setting of the schedule profiles can be carries out using the front panel of the NVR, referring to the images in the previous section use the following key presses.

Press the Select key to enter the Schedule set up screen.

Amending the profiles priority settings

Select the Modify box using the Up/Down/Left/Right key to display the priority settings and press the Select key.

Select the priority number using the Up/Down key and press the Select key.

Change the priority settings using the Up/Down key and press the Select key.

Press the Down key to move to OK and press the Select key to confirm the changes.

Change the priority listing

Select one of the profiles using the Up/Down key and press the Select key.

Navigate to required hour on the time table using the Left/Right/Up/Down key.

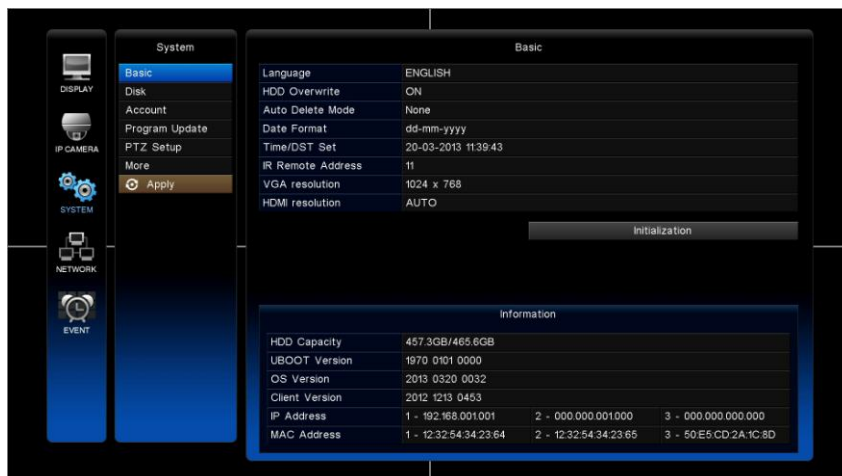
Press the Select key to change the profile number.

Press the Menu key to confirm and exit.

3. System

3-1. Basic

User can set Language, Auto Delete Mode, Date Format, Time/DST Set and VGA resolution. Also Initialisation and system Information is available.



Language

The default is English. Italian, French, Hungarian, Slovak, German, Russian, Chinese, Dutch, Spanish, Portuguese, Japanese, Danish and Polish are available.

HDD Overwrite

Generally this should be set to on to ensure that the NVR does not stop recording when the hard drives are full.

Auto Delete Mode

Auto Delete Mode can be set to automatically erase recorded older than a certain number of days. This can be set between 0 and 99 days.

Date Format

The default is dd-mm-yyyy. Other date formats available are: mm-dd-yyyy // yyyy-mm-dd.

Time/DST Setting



The NVRs time can be set by clicking on the time and date displayed in this section, the on screen keyboard will appear. Set the time and date and click OK, next select the country to enable the Day Light Saving mode.



If the country does not appear in the list, use the User define option.

Note : Playback following time change

The NVR uses the time and date to index video on the hard disk drive so you can find it later. Changing the time can cause the NVR to work improperly, when you try to play back video. If you set the hour ahead, this is not a problem. But, if you set the hour back, there will be more than one recording with the same time stamp.

Such as during the October Daylight Saving Time changeover, if you try to search for video between 1 am and 2 am, the recorder may not operate properly because there will be two hours of recorded video during this time period. To view video during this overlapping time period, you must start playback before 1 am, then recorder will play both hours between 1 am and 2 a.m.

You cannot do a backward search through the overlapping time. But, you can do forward search.

The Time and Date and the DST time can be changed from the front panel, the mouse or the remote controller

IR Remote Address

The remote control can be used to control up to 16 NVRs, the ID number on each can be set to a unique address so that the remote will only control one at a time if they are in close proximity. The default is 11.

Repeated click on the ID value to change to the required number.

To select a unit on the remote control press the ID button, followed by the number, followed by the ID button again. The LED will flash slowly.



VGA resolution

The VGA resolution can be set from 1024x768 to 1920x1080.

HDMI resolution

The HDMI resolution can be set to 1080i, 1080p and Auto.

Initialization

All the menu settings will be returned to the factory default. To carry out this function the system recording will have to be turned off.

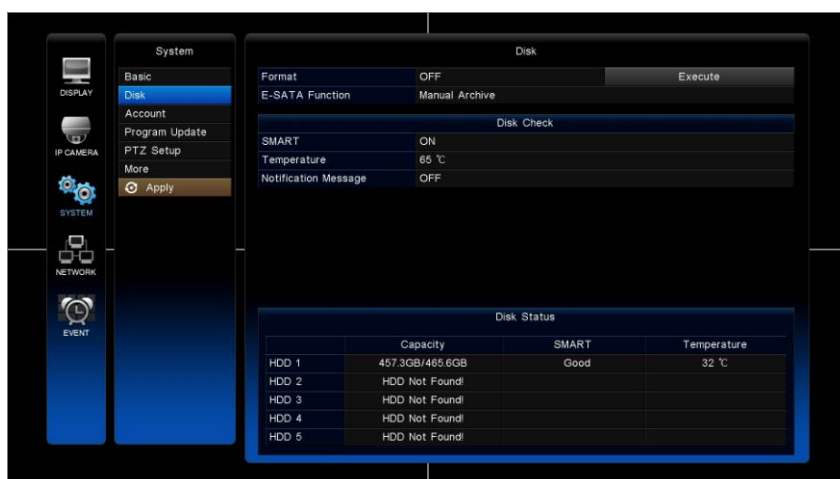
Information

The Information Screen shows the hard disk size, current firmware version, IP address* and MAC address*.

* IP & MAC address ;

1: Network port for IP camera 2: Network port for PC client

3-2. Disk



Format

Formatting of the drive is used when new drives are installed or you need to wipe all information on the disk.

Click on OFF to turn to ON, then click on Execute, click YES, to confirm

Smart

This function is used to keep a check on the health of the Hard disk. The parameters which can be monitored are:

- Read/Write errors on the drive
- Drive temperature.

Smart : Turn to on to enable feature

Temperature : Using the on screen keyboard set the temperature at which the warning is to be reported. (recommended setting 45°C)

Message : The message box can be turned on or off to give a visible warning. Alternatively and E-mail; can be sent if any problems occur.

3-3. Account

The NVR can have the following different levels of operators, each with different users rights and passwords:

- Admin level : Operators logged in at this level has full rights
- Manager level : Operators logged in that this level as default have access to all except: Stopping Recording and Shutting down the NVR.
- Users 1-25 : Operators logged in at this level only have the ability to search and play, control PTZ cameras and get access via the network.

Each users rights, can be individually tailored to their own requirements, the amending of these rights can only be done by an Administrator level log on.



Amending operators settings and user rights

Click on the box beside Level, this will step through the 27 operator set up pages, chose the operator required.

The operator ID & Password can be changed using the on screen keyboard.

The operator's user rights can be amended:

- Menu – Allows access to the menu
- Play/Search – Allows access to the Playing back and Searching
- Archive – Allows the ability to download information
- Rec – Allows the ability to turn off recording
- PTZ – Allows the ability to control PTZ cameras
- Network – Allows the ability to view remotely with the client software
- Covert – Allows the ability to view covert cameras
- Shutdown – Allows the ability to turn the power off from the front panel
- Set Preset – Allows the ability to preset the position of PTZ camera
- Channel – Allows the ability to see channels via network

Once the above has been set, ensure that the Activate box has been ticked.

Automatic timed log out

The system can be set to automatically log out a user after a certain amount of time if no key presses have been made. The operator level has to have been activated before this can be set.

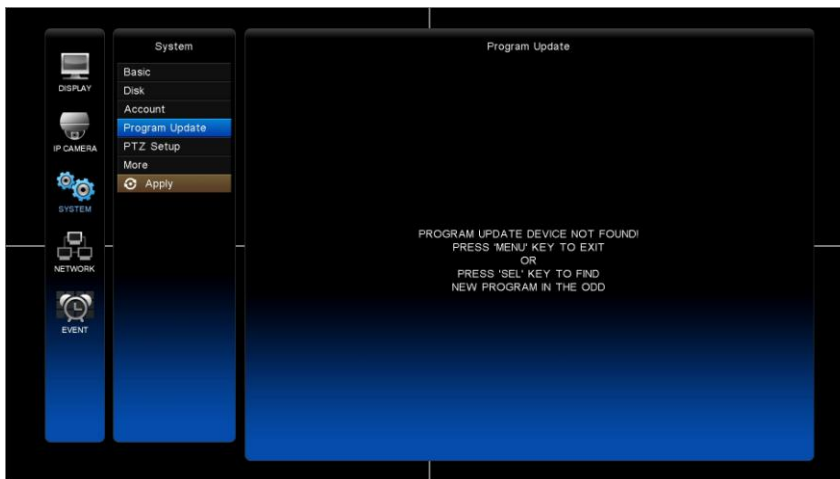
Click on the boxes adjacent to “Local” for the time out period for operation from the front panel. Click on the box adjacent to “Client” for the time out period for operation from the client software. This can be set to either: Off, 15 mins, 30 mins or 1 Hour.

Archive log access


Access to the archive log is password protected, use this section to amend the password per user. This will allow traceability of which user has downloaded information.

3-4. Program Update

Always turn off: Recording, Playback and Network access while upgrading the unit



The latest firmware version can be upgraded through USB 2.0 port using memory stick.

When a memory stick is connected to the USB port, this symbol () will be shown in the status bar of the screen.

Enter “Menu” >> “System” >> “Program Update”. If the system recognizes the new firmware then, “New program found” will be displayed on the screen.

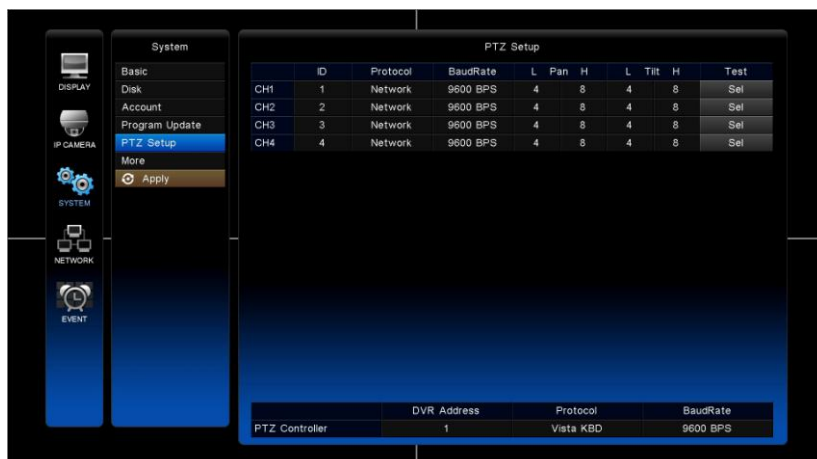
Next press the “SELECT” button, processing percentage will be displayed.

NOTE

1. If the system doesn't recognize the new firmware, “New program not found” will be displayed.
2. For system stability, please turn off 1) recording 2) playback 3) network connection during upgrading.
3. After updating program, reboot the NVR. The simplest way is press the Power button and enter the password.

3-5. PTZ Setup

The NVR can control PTZ cameras via network or a RS485 connection on the rear of the NVR. The cameras can have individually selectable protocols with a choice of Vista PD, Pelco P or Pelco D. The Baud rate can also be selected.



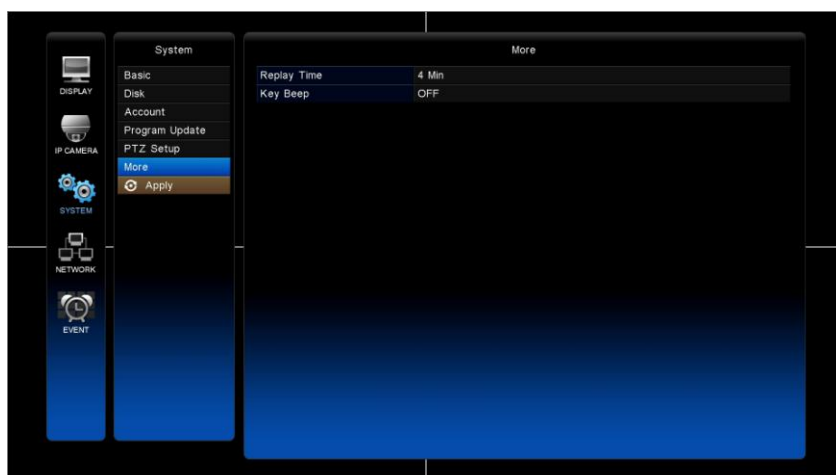
PTZ Controller

The NVR needs to be setup to accept the VKBD3im or VKBD4 keyboard, as a default this will be set to the correct protocol and baud rate.

The DVR address – This sets the RS485 Address of the DVR.

The Keyboard ID should not be the same as the DVR, see keyboard manual for addressing.

3-6. More




Replay Time

It is possible to play back again from the scene of previous time (1 minutes to 60 minutes).

Key Beep

The NVR beeps whenever the button on the front panel is pressed (On/Off).

4. Network

If the NVR is connected to a network, this icon () will be shown in the OSD display. This menu can only be accessed if the user has the necessary rights. (Default password is 00000000).



With in the Network menu the DDNS (Dynamic Domain Named Server), IP addresses, NTP and Live can be set.

4-1. Basic

IP Set

When a fixed IP address is being used, the Use Dynamic IP should be set to NO. The IP Address, Gateway and Subnet Mask need to be set, these will generally be given by the Network Manager. DSL refers to all types of Digital Subscriber Line such as ADSL and SDSL.

DDNS Set

DDNS is a service that maps Internet domain names to IP addresses. DDNS serves a similar purpose to DNS: DDNS allows anyone hosting a Web or FTP server to advertise a public name to prospective users.

Unlike DNS that only works with static IP addresses, DDNS works with dynamic IP addresses, such as those assigned by an ISP or other DHCP server.

What this means is that the NVR does not need a Static IP address to be available for viewing remotely over the World Wide Web.

Please refer to Appendixes 1 on how to set up the DDNS service.

[Common Setting]

DVR/Web Port

The DVR Port and WEB Port can both be changed if required, default are 2000, and 80 respectively.

Bandwidth

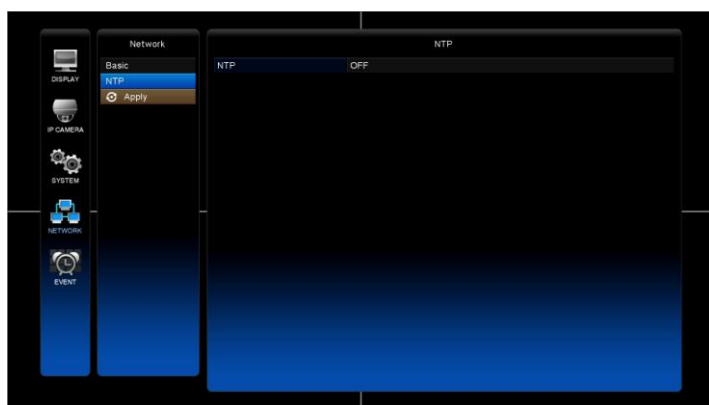
It is possible to set maximum limits for the bandwidth utilisation on the network port of the unit.

Main Port

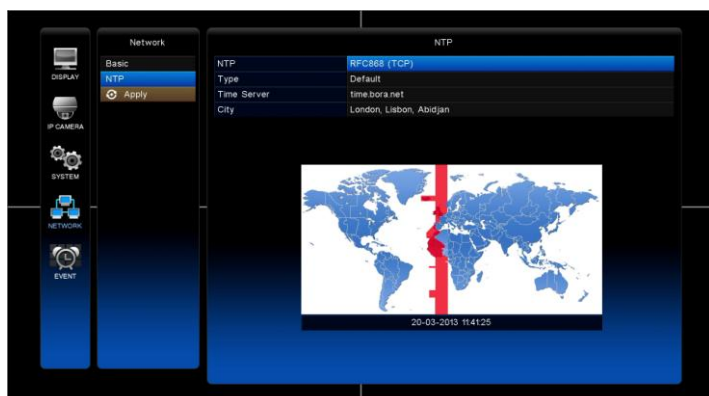
It allows the selected network port to work as the port for NTP, e-mail.

4-2. NTP

The Network Time Protocol Setting allows the NVR time to be synchronised with an external time server. The default is NTP OFF.



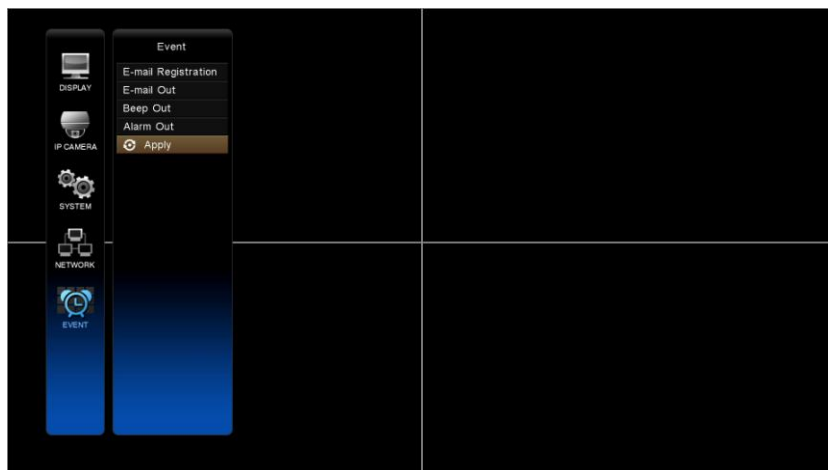
When turned on the Type of service can be selected, options are Default (time.bora.net), Domain and IP.



The Time zone can also be chosen within the City selection.

5. Event

This section is used to inform the user as to an event occurring, this can be by the sounding of a buzzer or by sending an E-mail to a predefined address.



5-1. E-Mail Registration

Within this section up to 6 users can be set-up to receive an email on the occurrence of an event such as Video Loss / Alarm / Motion or Power Loss. An E-mail will only be sent if the NVR is sitting on a network with access to the Internet, e.g. through a router.



The e-mail addresses are set via the alphanumeric buttons on the front panel, or from the on screen keyboard via the mouse.

The Sender Address is the address that will appear on the E-mail received by the user, this should be set logically to identify the specific NVR.

The report period is used to set how often e-mails are sent: Immediately on and event, Daily or Weekly

Start/End Time : Enable to send e-mail notifications only for events that occur within a specified range of time.

Send Test Mail : Enable to send a test E-mail to the addresses so allowing the installer to verify if the setup is correct.

SMTP Mode

The SMTP (Simple Mail Transfer Protocol) function allows e-mails to be sent over a LAN. The default is SMTP Mode "OFF".

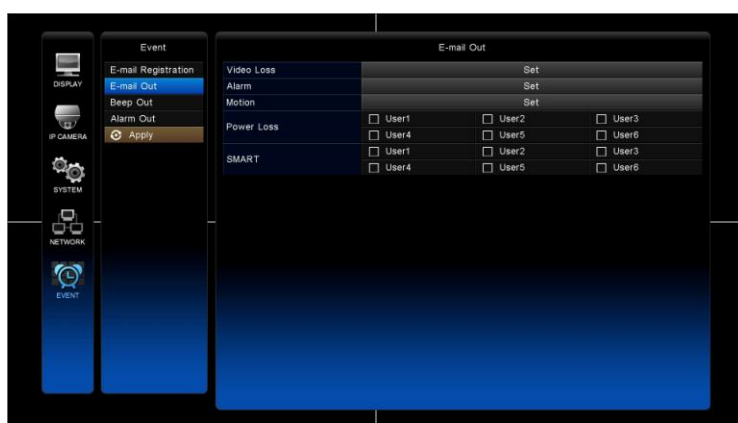
In order to activate SMTP Mode, choose SMTP Mode either IP or Domain first.

Then, put ID, Password, IP address, and port.

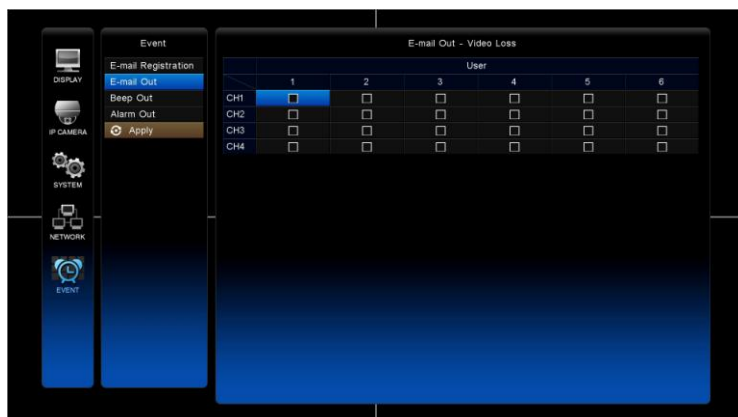
Finally press "SMTP Status Check" to test.

5-2. E-mail Out

As well as e-mail on event activations the NVR can be set to send a report on the following occurrences: Video Loss; Alarm; Motion; Power Loss and Smart (Hard disk monitoring).



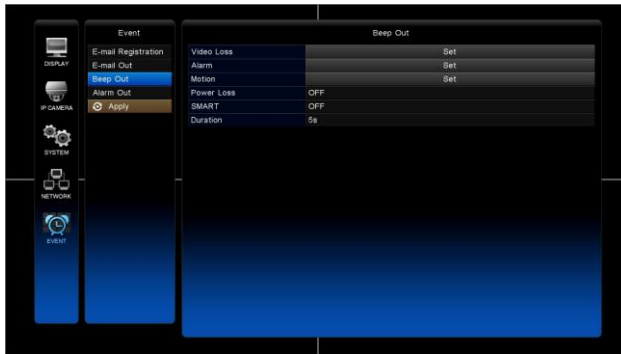
The video loss, alarm, motion can be set each user, channel. Press the Set box and tick the box.



5-3. Beep Out

The buzzer can be set to sound on the following occurrences: Video Loss; Alarm input; Motion detection; Power Loss; Smart (Hard disk monitoring).

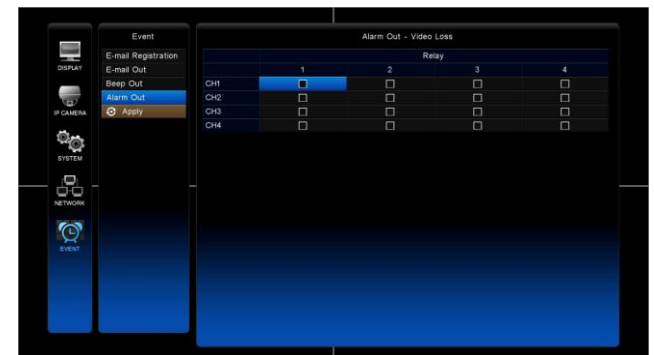
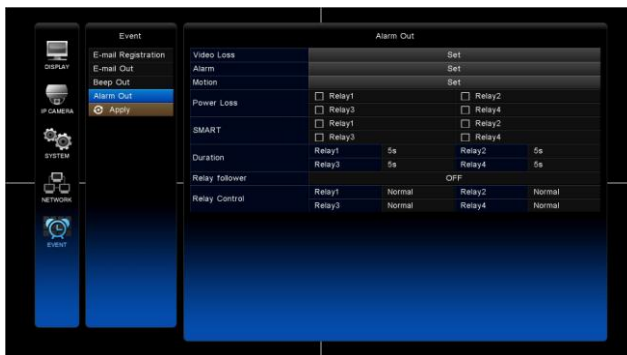
The duration of the beep can be set.



5-4. Alarm Out

The Alarm out relay can be set to activate on the following occurrences: Video Loss; Alarm input; Motion detection; Power Loss; Smart (Hard disk monitoring).

The duration of the activation can be set.



Relay Follower

A relay can be set to close each time a camera is selected.

This relay closure can be used as the Alarm input to a switcher, such as the VS042A. If the Monitor outputs from several NVRs are taken to the inputs of this switcher, then each time a camera is selected, the switcher will change it's output to the relevant NVR monitor picture. This allows the full screen images of several NVRs to be viewed on a single monitor.

Relay Control

Normal = Relay will close when an alarm activation is received

On = Relay permanently active

Off = Relay not active

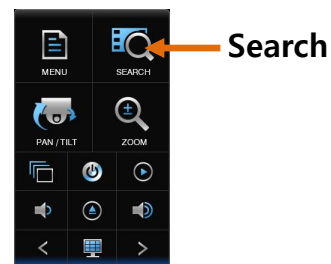
Search Menu

1. Searching Recorded Data

The user can search the recorded video on the NVR to find a specific time or event.

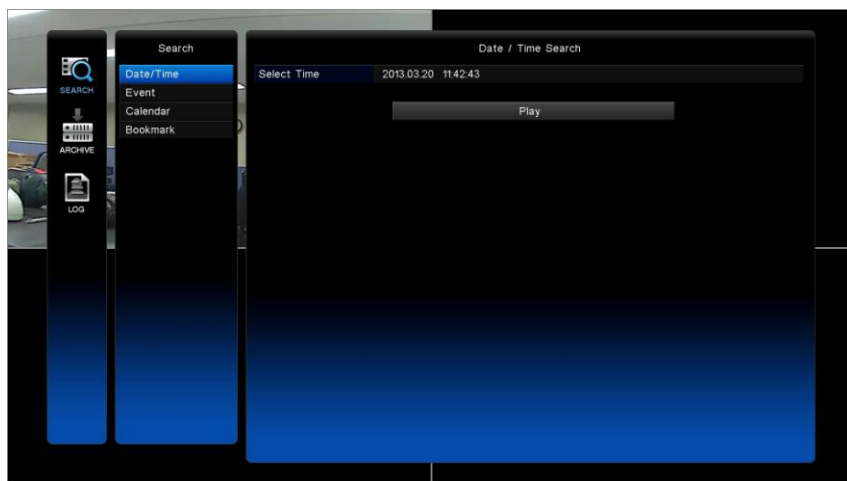
To access the search option, click the SEARCH icon on the popup menu.

To access the search option, press the SEARCH button on the front panel or right click the mouse and select Search, (A password may have to be entered) after which the following screen will be displayed.



1-1. Date/Time Search

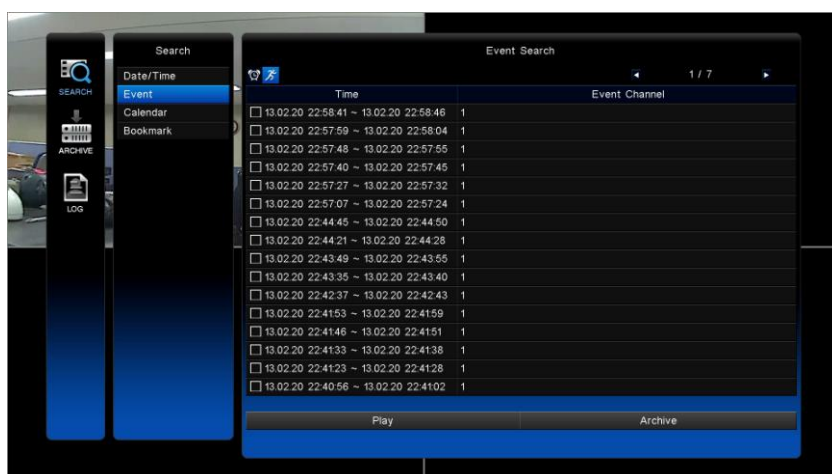
If you select date/time search, the following will be shown. Use the numerical number on the front panel or the mouse to select the time and date required, then press the Play button.



1-2. Event Search

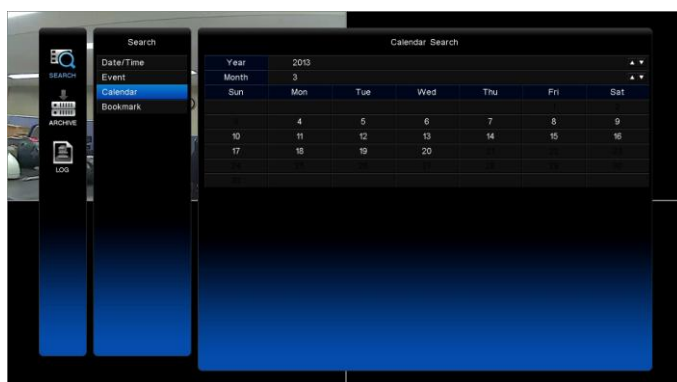
This allows the user to select between ALARM, MOTION or AUDIO. Select required option by pressing the right arrow, or selecting with the mouse.

ALARM – The search is for any alarm activation within the times defined.
 MOTION – The search is for any motion events within the times defined.
 AUDIO – The search is for any audio activations within the times defined.



1-3. Calendar Search

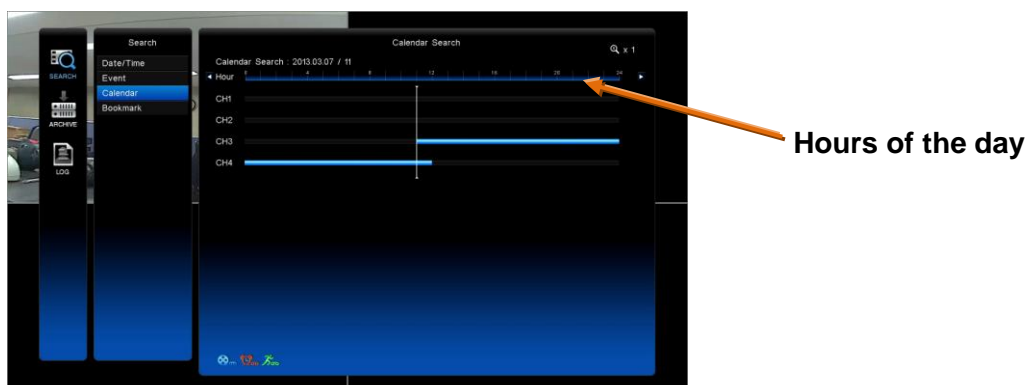
The Calendar search gives a graphical representation of when video is recorded on the hard drive.



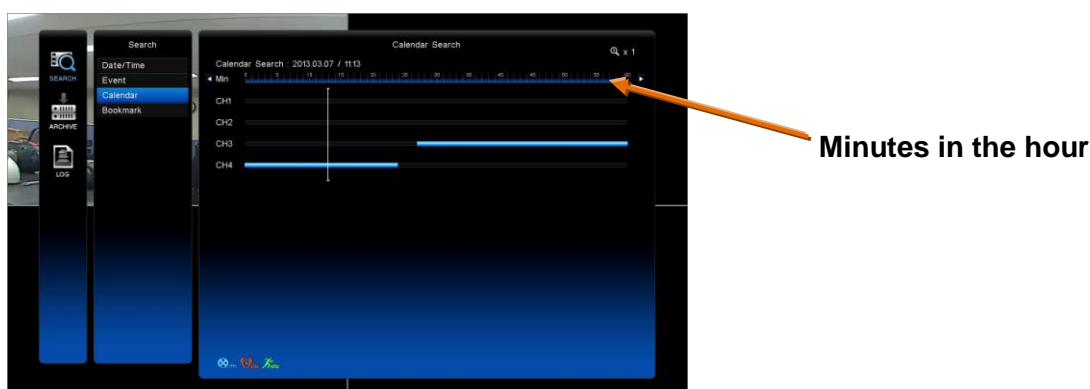
The year and month can be selected. This month is shown as a calendar on the screen, any day which contains recorded video will be indicated by a highlighted number in white.

Move to the desired day by using the up/down/left/right buttons, Select the day by pressing the SEL button.

The following screen will be displayed.



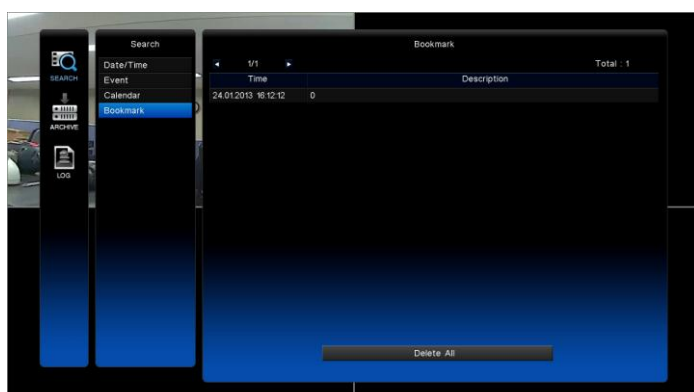
The hours which have recorded data are displayed as a coloured bar. Select the hour which you want to review, the following screen will be displayed.



The minutes which have recorded data will be displayed as a coloured bar, click on the time required; the recorded data will be played back from this point.

1-4. Bookmark Search

This allows the user to edit the bookmark.



* How to put a bookmark in the recorded file ;
Press the bookmark icon at the point you want during playback.

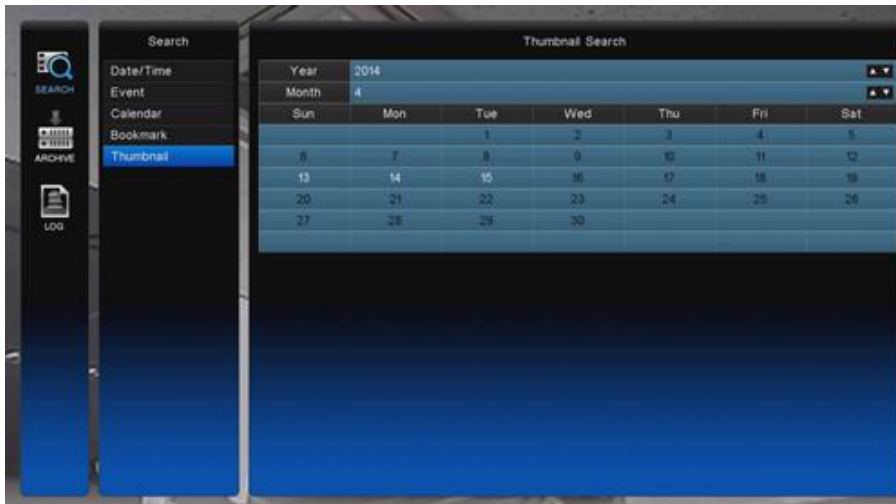
1-5. Thumbnail Search

The Thumbnail search displays a single camera over either a 24 hour or single hour period,

as a number of time lapse still images on screen. By clicking on the image the video from that point in time is played.

Operation:

1. Select Thumbnail option from search menu



2. Select the relevant day



3. Select the relevant camera, the 24 hour period will be displayed as shown below in hourly segments:

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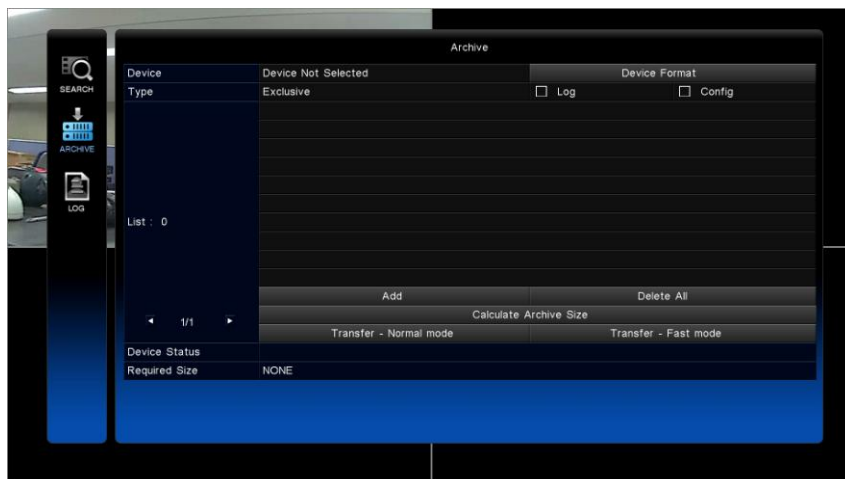
click on hour segment required

4. Thumbnail images from that hour will be displayed, the hour is split into 20 even time periods, click on the correct time period, the video will play back.

2. Archiving Evidence to DVD/CD or USB

Once the required video has been found, it may be necessary to download it for evidential purposes. This can be done via the USB port on the front of the NVR.

To do this press the SEARCH button and using the down button move to ARCHIVE, once highlighted press SEL, the following screen will be displayed.



Device

This allows to search the archive device via the USB port.

Device Format

When using a USB pen, the format should be done first.

Type

Exclusive : If evidence is downloaded as an Exclusive file, the NVR will download bespoke player software on to the USB device along with the evidence. This means that no special software is required, by the reviewing PC. This format is secure and watermarked.

AVI : The evidence is downloaded as an AVI file, this backup file can be played on a PC using the well known media player like Windows media player.

LOG

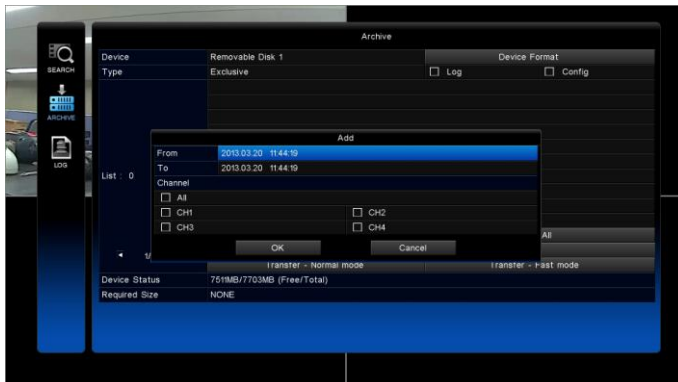
The Log file can be downloaded from this menu screen, simply tick the LOG box and do not select any camera channels, then select transfer.

Config

The Configuration files for the NVR can be downloaded and saved.

[Adding the files to archive]

Press the ADD button, the following screen will be displayed.

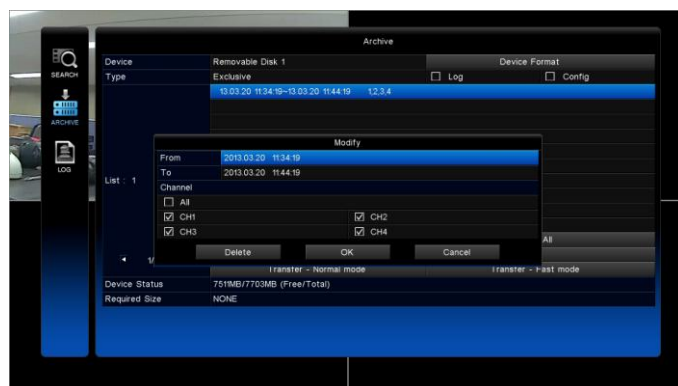


From/ To

You can set up the start and stop time which is required to be backed up to the USB device. Highlight this option, then press SEL, then use the alphanumeric buttons or the mouse to set the time and date. Repeat for the end time.

Channel

As long as the EXCLUSIVE file format is selected, the number of channels to be down loaded can be selected. Anything from a single channel to all 30 can be selected.



Modifying the archive list

Press the required file on the list, the pop-up window appears. You can modify the time, channel.

Calculate Archive size

Once the time and date and file format have been entered, it is necessary to confirm that the size of file created will not exceed the size of memory available on the disk or USB device.

Move to Calculated Archive size and press SEL.

The NVR will then calculate storage space required for download file. This will be displayed in the Required Size section. As long as the Required Size is smaller than the Free/ total space, then move to Transfer and select it.

Transfer

When Transfer is highlighted press SEL, the downloading will start. Percentage done during downloading will be shown.

- Normal mode : The archiving speed is lower than that of the fast mode.
The other operation like setting the menu is available during archiving.
- Fast mode : The archiving speed is higher than that of the normal mode.
The other operation is not available during archiving.

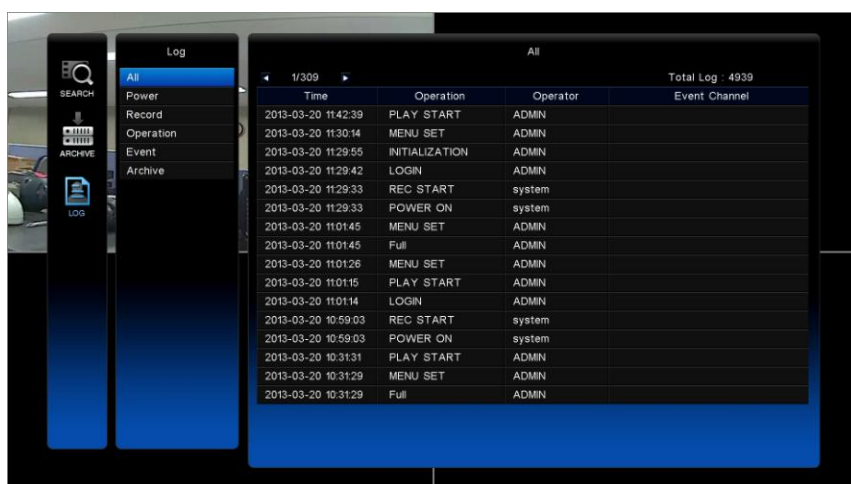
NOTE Do not shutdown the NVR during the archiving process.

3. LOG

The log file contains information on the following:

All : Power, Record, Operation, Event, Archive
 Power : Power on, Power off, Power fail
 Record : Rec fail, Rec start, Rec stop, Rec error, Rec full
 Operation : Play start, Play stop, HDD format, Menu set
 Event : Alarm, Motion, Audio, Video loss, Email fail
 Archive : This lists the USER, time/date when Archive was done, and time range of archived section.

A total of 5000 events can be recorded the oldest being overwritten when a new one occurs, they can be viewed all together or as individual types.



Client Viewer software

Each DVR comes with license free viewer software to view the DVR across a network. To be able to do this the recommended minimum specification for the PC is as follows:

Minimum PC specification

- > CPU: Core 2 Duo 3.16GHz,
- > RAM: 3GB

Installing software

When you put Quantum Network installation CD into your PC, it will auto run and lead you through an installation wizard. Follow the instructions. Once the software is loaded it will automatically run.

Connection

To connect to the Unit, open the Viewer Software and click the connection button ().



To connect to the DVR, enter the units: IP address; DVR Port (2000 ids default), ID and Password. Then, click “OK”, to start the live monitoring.

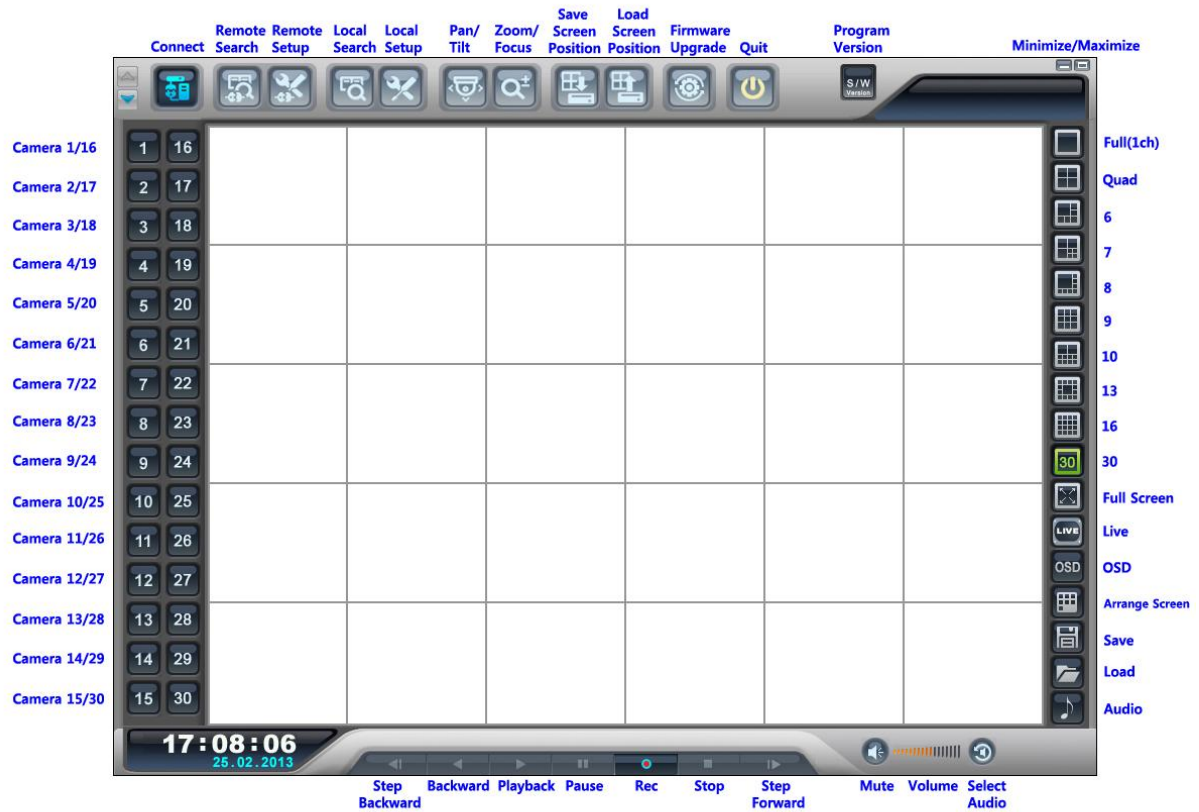


Click on the Arrow to the left of the IP address, the following box will appear. This lists the last 22 units that have been accessed. To reconnect to one of these units simply double click, then add the IP and Password.

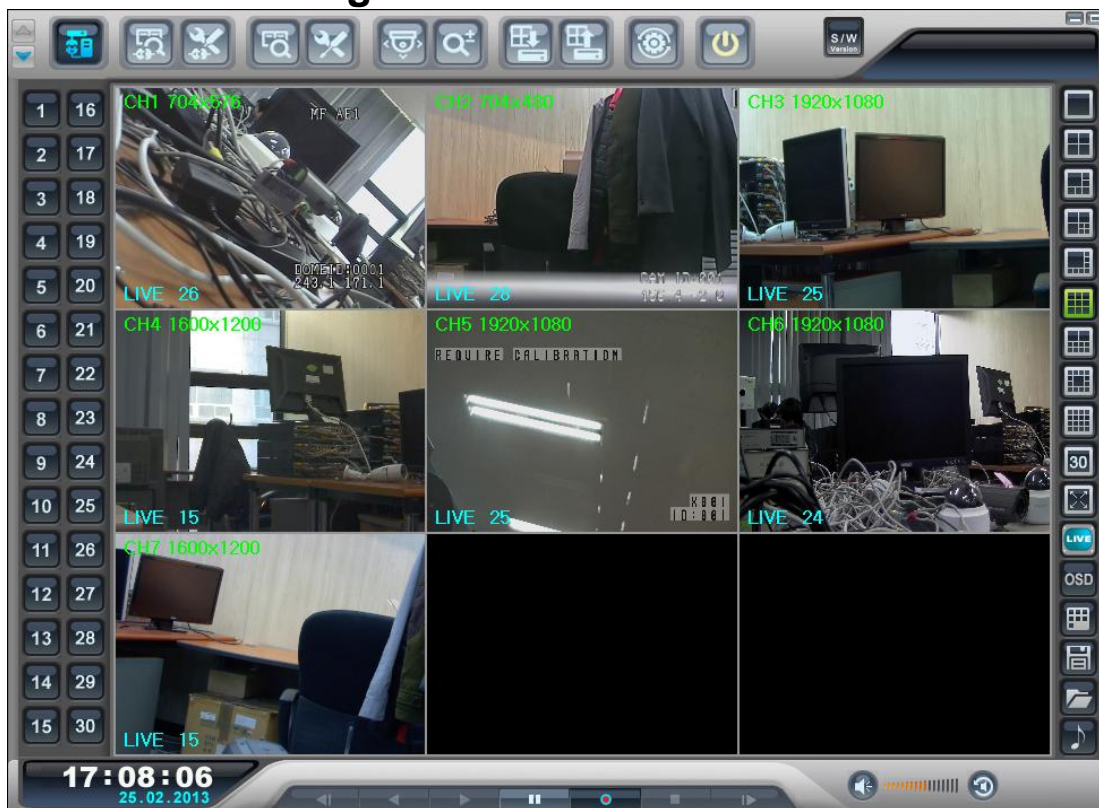
The screenshot shows a Windows XP desktop environment. In the center, a Recycle Bin icon is visible, containing a file named 'C:\Program Files\Internet Explorer\Internet Explorer.exe'. The file is highlighted with a blue selection bar. The desktop background is a blue gradient with a large red arrow pointing towards the Recycle Bin. The taskbar at the bottom includes the Start button, a search bar, and several open applications: Internet Explorer, Recycle Bin, and a command prompt window.

IP Address	Year	Username
192.168.10.52	2000	admin
192.168.10.57	2000	admin
192.168.10.56	2000	admin
192.168.10.59	2000	admin
192.168.10.58	2000	admin
192.168.10.117	2000	admin
192.168.10.116	2000	admin
192.168.10.134	2000	admin
192.168.10.204	2000	manager
192.168.10.124	2000	manager
192.168.10.66	2000	admin
192.168.10.69	2000	admin
192.168.10.62	2000	admin
192.168.10.225	2000	admin
192.168.10.132	2000	admin

Explanation of Screen Buttons



1. Live Monitoring



Split Screen options (1/4/6/7/8/9/10/13/16/30)

Split Screens can be viewed during both live and playback. The split screens available are: full screen, 4, 6, 7, 8, 9, 10, 13, 16 and 30 way.

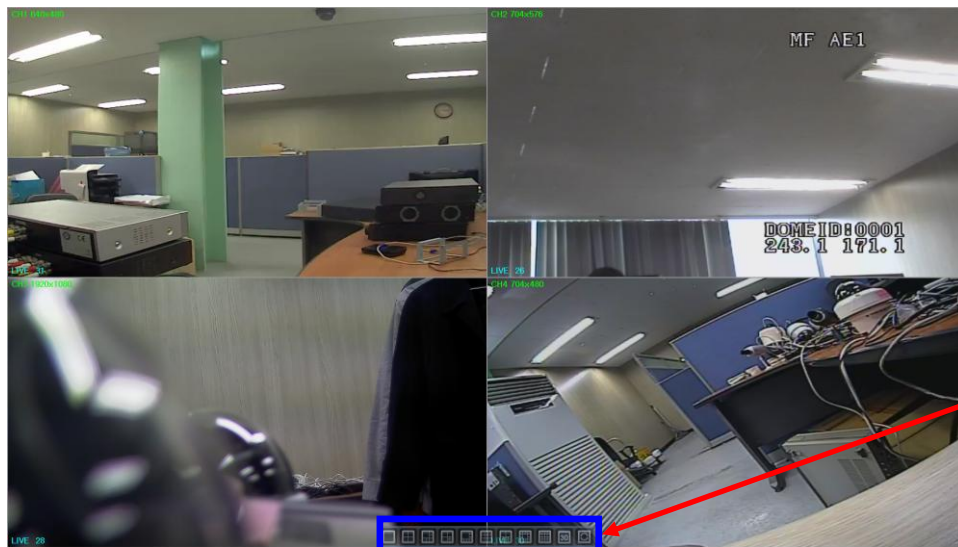
1) Single Screen



2) 8 Way Split Screen

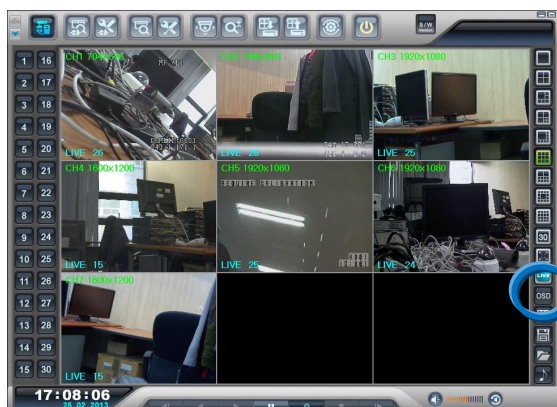


Full Screen on/ off



When the full screen button is selected, a tool bar offering the various split screen options, and the Exit key will be displayed at the bottom of the screen.

OSD on/off



The OSD button will toggle between the on screen titles etc being shown or hidden

(Smart) Arrange On/Off



If cameras are being displayed in segments that are not logical, the Smart button will rearrange and put camera input 1 into segment 1 (Top Left) etc.

Image Save  / Load 



SAVE: This icon is used to save a still image in either JPEG or BMP or TIF format. There is no change on the main screen when the “Save” icon is pressed.

The still image is stored as default in C:\HNClient: Saved folder, as a Jpeg image using the date and time as the file name.

LOAD: This icon is used to retrieve and view a saved still image, when selected a list of available images will be shown. Select to one required, it will be displayed along with data information (Status-Live/Playback, IP address, CH No.).

Playback (Step Backward, Backward, Playback, Pause, Recording, Stop, Step Forward)



Audio (Mute, Volume, Select Audio, Microphone)



Select Audio: Toggles through audio channels.

2. Remote Search



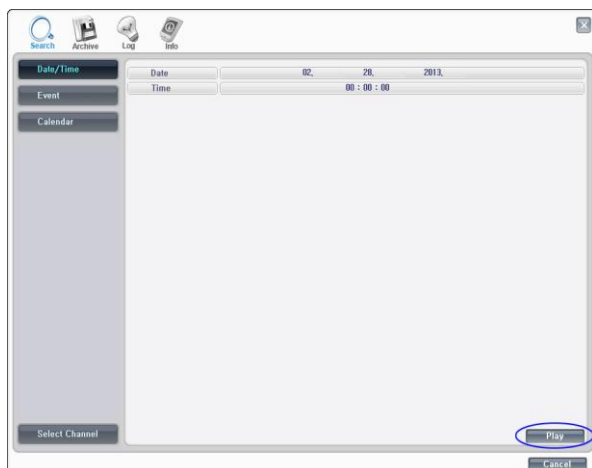
Search(Date/Time/Event/Calendar), Archive(Remote Archive), Log(Remote Log) are available.

2-1. Search

This Remote Search is able to play back video on the PC direct from the hard disk storage on the DVR. There are 3 options for as follows.


- 1) Date/Time
- 2) Event
- 3) Calendar

Date/Time Search

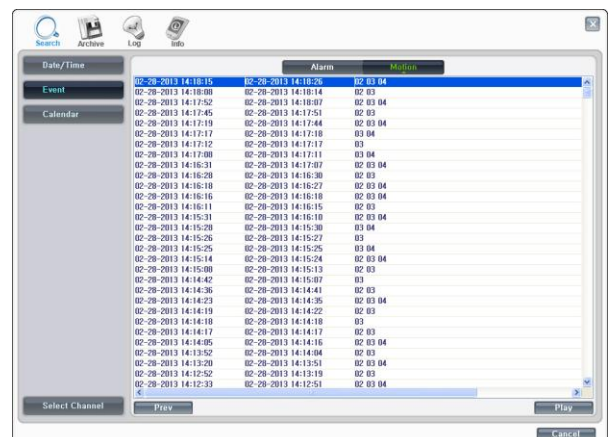
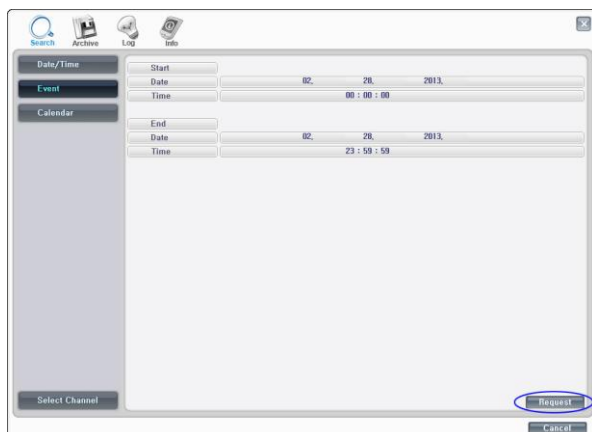


When the cursor is placed over a part of the time and date a drop down arrow will appear, use this to set the required value. When set.

Click "Play" button, this window disappears and Remote Playback will start.


To stop playing back press Stop  the search screen will appear to allow another search to be carried out, if not required, click cancel followed by live.

Event Search



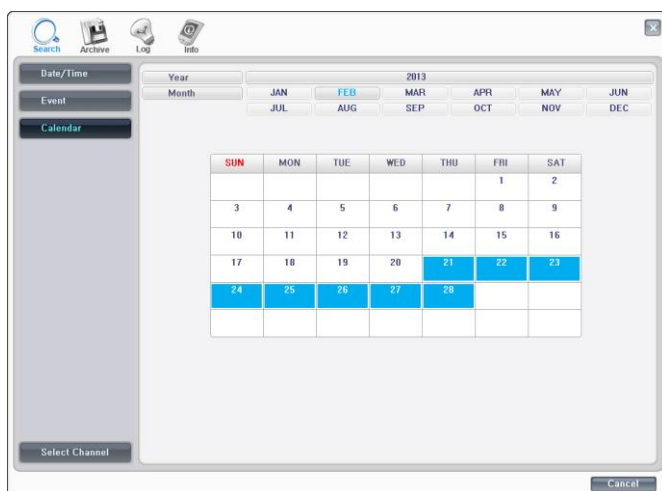
Click on the Event button on the right hand side, the software will search for all event types. This may take a short while.

A list of the available events will appear. To play an Event select it and click Play.

To stop playing back press Stop  the search screen will appear to allow another search to be carried out, if not required, click cancel followed by live.

Calendar Search

Select the date required (as long as the date is highlighted in Blue there is recorded data on from that day).

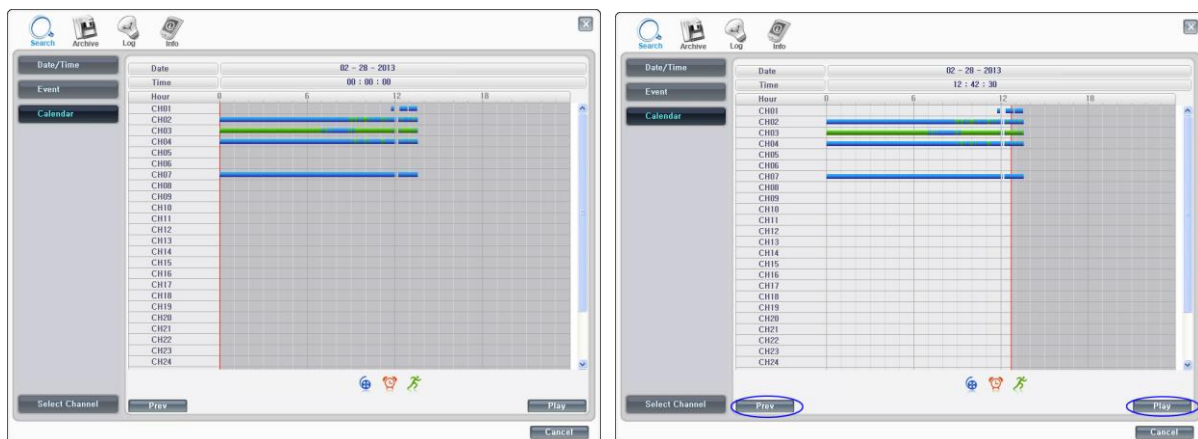


There are 3 options for selecting the required time once the date has been selected.

- 1) Drag the Red line along the colour bar (i.e. Blue: Normal Recording) till the required time is reached.
- 2) Click on the required time for playback on the blue bar then the red line will move to this point.
- 3) Hover over the time box, a drop down arrow will appear allowing the manual selection of Hours, mins and seconds.

Next click the "Play" button for Remote Playback. Or, click "Prev" to go back to previous stage.

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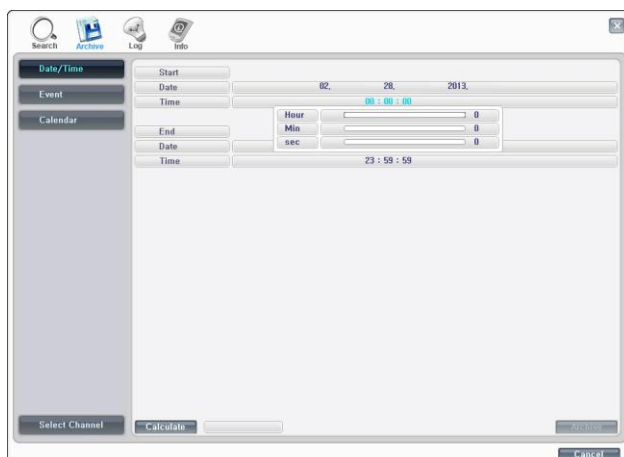
[Select Channel]



Channels can be included or excluded dependent on query. This is available within Search, Backup and Logs.

2-2. Archive

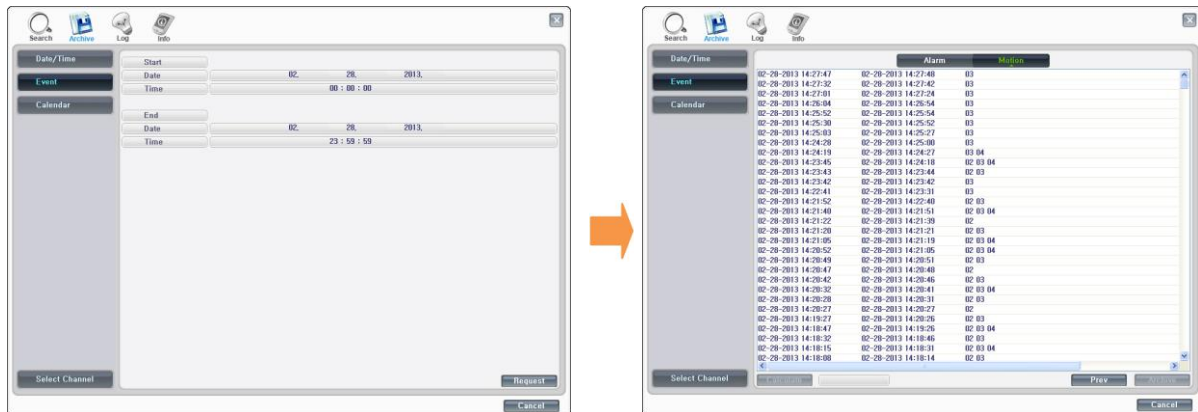
Remote Archive – Date/Time



Enter the Start and End dates and times, by hovering over the selections, a drop down box will appear.

Once selection is made, then “click” calculate, the file size will be displayed. Finally click “Archive”, the file will be transferred to C:\HNClient\Download.

Remote Archive – Event



Select either: Alarm, Motion or Audio from the top of the screen. A list of events will appear.

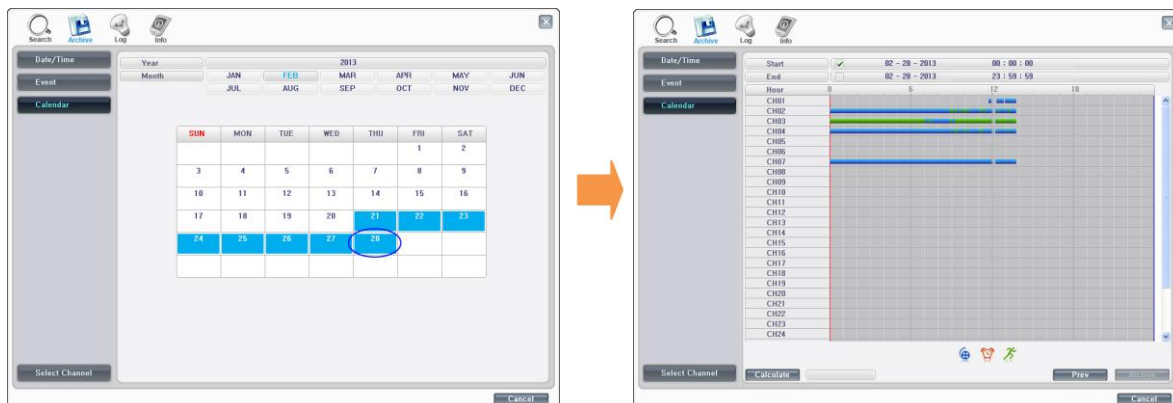
Click on the event required, it will be come highlighted.

Click on Calculate, the file size will be calculated, this may take a few seconds.

Finally click Archive; the file will be transferred to C:\ HNClient \Download.

Remote Archive – Calendar

Select the date required (Days with recorded video a data present are highlighted in **Blue**)

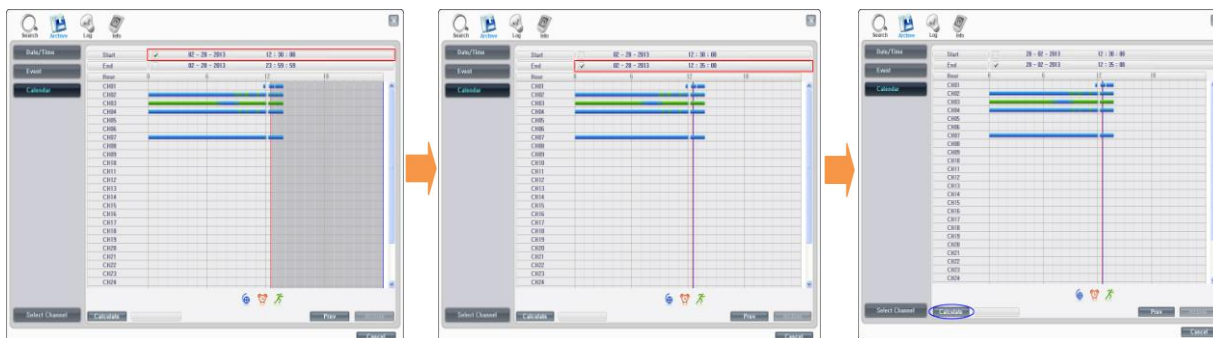


There are 3 options for selecting the required time once the date has been selected.

- 1) Drag the Red line along the colour bar till the required time is reached.
- 2) Click on the required time for playback on the blue bar then the red line will move to this point.
- 3) Hover over the time box, a drop down arrow will appear allowing the manual selection of hours, minutes and seconds.

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Then click the “Next” button to set “End” Archive time, in the same manner.



Click on Calculate, the file size will be calculated, this may take a few seconds.

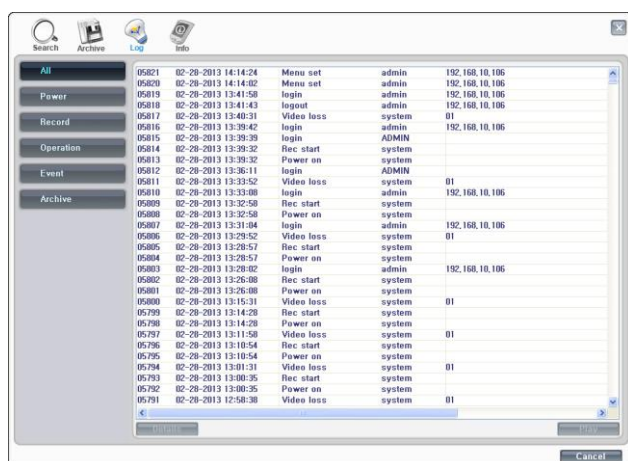
Finally click Archive; the file will be transferred to C:\HNClient\Download.

[Play back down loaded files]

Open the viewer software but do not connect to a unit, click the cancel button to remove the log on box.

Next click on the Local search button () the normal search box will appear, use the same method to search the files on the PC and Play back

2-3. Remote Log



The Log file can either be viewed or printed.

The recorded Event can be played, by selecting it and clicking on Play.

The log list can be viewed as a whole or filtered by the following types :

- Power : Power on, Power off,
- Record : Rec fail, Rec start, Rec stop, Rec error, Rec full
- Operation : Play start, Play stop, HDD format, Menu set
- Client : R_Login, R_Logout, R_Logfail, R_Play, R_Transfer, R_Rec on, R_Rec off, R_Upgrade
- Event : Alarm, Motion, Audio, Video loss, Email fail.
- Archive : This is a Password protected section, only available to users with the correct rights. Click on the Archive button a password entry box will appear, which has to be completed before the Archive log list will appear.

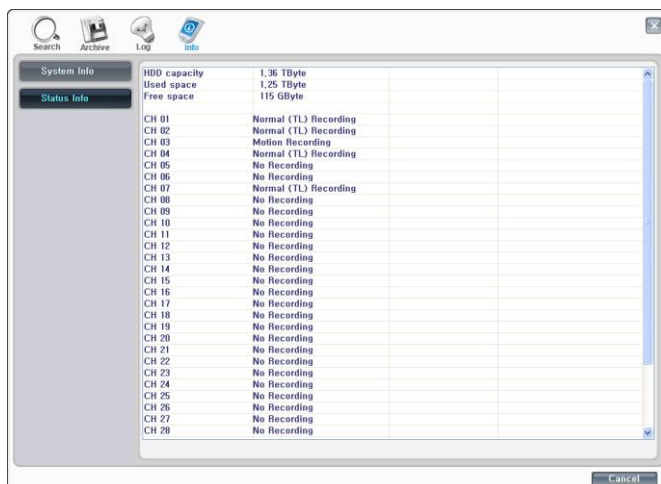
2-4. Information

System Information



The system info displays the Mac address and software version information.

Status Information



This shows the status of both the Hard disk and the recording modes of each channel.

3. Remote Setup (Menu settings - same as DVR)



3-1. Display

This is the same as the Display Menu of NVR, refer to setting the Display Menu of NVR.

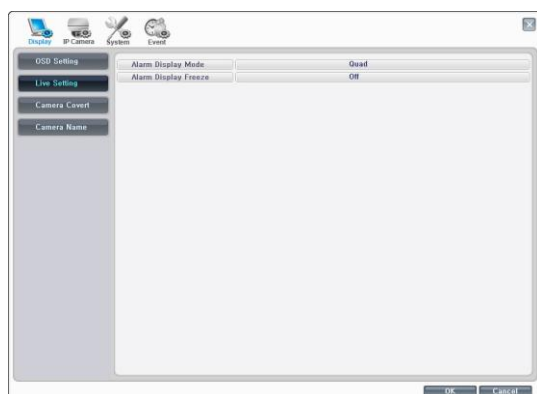
OSD setting



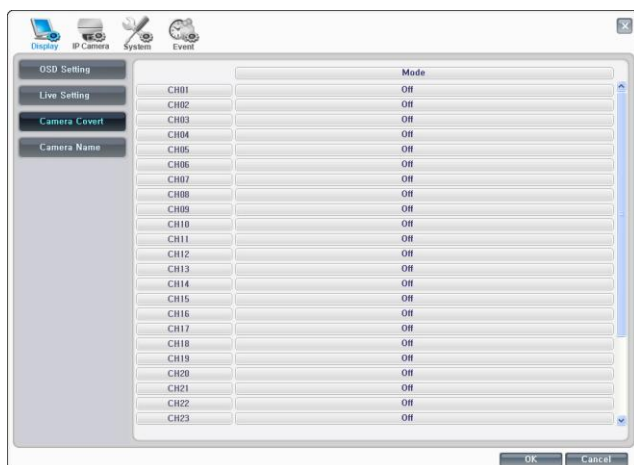
The Symbols and text displayed on screen can be controlled:

1. The status bar can be set to be off/ Always on or be on for 5 or 10 seconds after a key press.
2. The Event symbols such as Motion, Audio, Pan / Tilt can be displayed or turned off.
3. The camera name can be displayed or turned off.
4. The PTZ display can be made to time out
5. The Password entry box can be made to time out
6. The darkness of the status bar can be varied.

Live setting

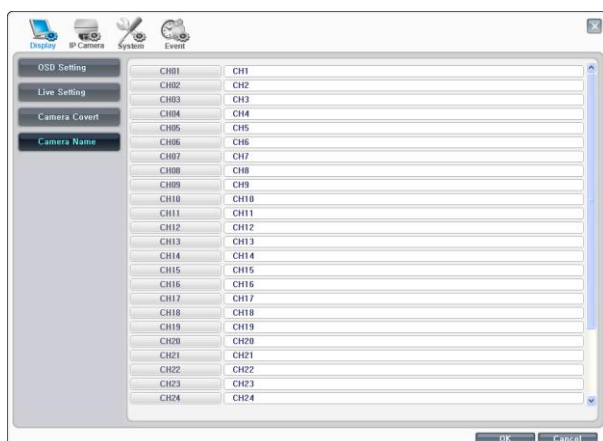


Camera Covert



Cameras can be remotely set into Covert Mode, they are still being recorded but cannot be viewed local to the system, or by any remote user apart from the Administrator on line.

Camera Name



Up to 32 Characters are available for each camera name.

3-3. System

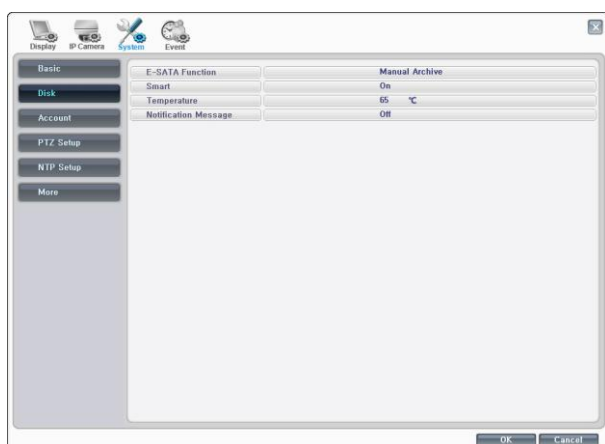
Basic



This section is used to select:

Language
Date format
DST Setup
IR Remote Address
VGA Resolution
HDMI Resolution
Bandwidth

Disc



Format

Formatting of the drive is used when new drives are installed or you need to wipe all information on the disk.

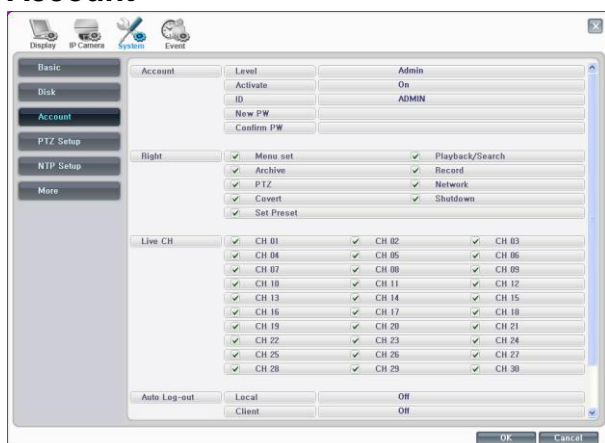
E-SATA Function

This allows the E-SATA port on the rear panel to work as the port for storage or backup.

Smart

This function is used to keep a check on the health of the Hard disk.

Account



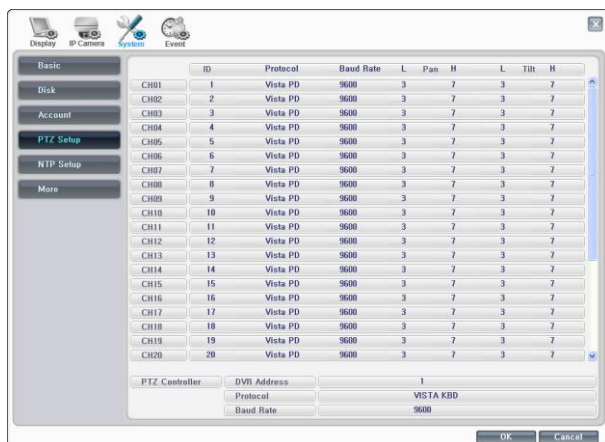
The NVR allows for :

- 1 Administrator level log on
- 1 Manager level log on
- 25 User level log on

Each of the 27 log-on accounts can be given individual passwords and user rights

To amend the Name and password, click on the name beside the Client Account box. This will display the name in the ID box and it can be edited and passwords changed and confirmed. User rights can be applied.

PTZ Setup for camera



[ID]

Each camera input can be allocated an RS485 ID between 1 and 255.

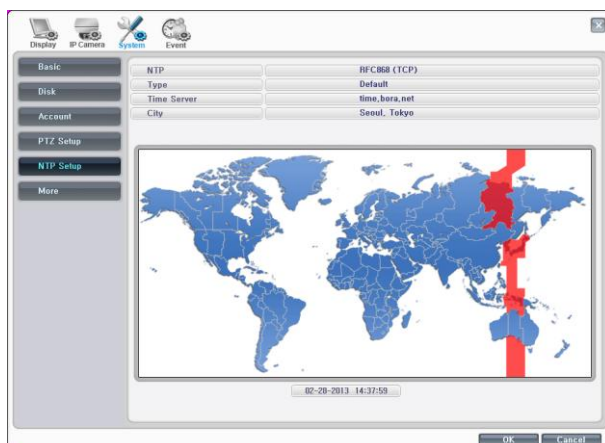
[Protocol]

Each camera output can have an individual protocol associated with it.

[Baud rate]

The Baud rate of each PTZ camera can be set the choices are:
2400bps/4800bps/9600bps/19200bps

NTP Setup



NTP setup allows the NVR to have its internal clock synchronised with an External clock. The default setting is "Off"

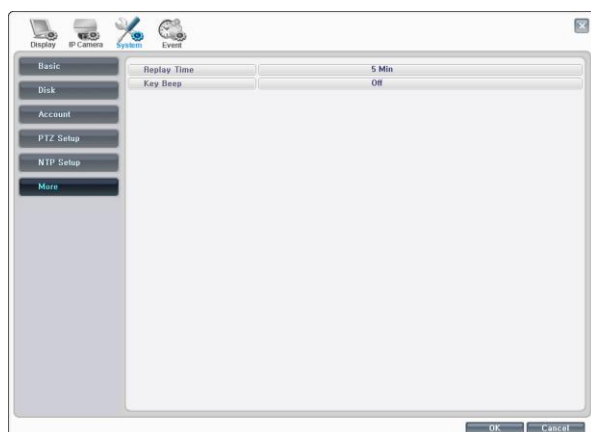
To set up hover on the "Off" a drop down arrow will appear giving the option to turn "On". Once "On", two other options will appear: Type allows selection between:

Default – Time server is "time.bora.net".

Domain – Where another time server name can be added.

IP – Where an IP address for a time server can be input.

More



Replay Time

It is possible to play back again from the scene of previous time (1 minutes to 60 minutes).

Key Beep

The NVR beeps whenever the button on the front panel is pressed (On/Off).

3-4. Event

Email Registration

The screenshot shows the 'Email Registration' window in the QVNR04P/08P software. The window has a sidebar with buttons for 'E-mail Registration', 'E-mail Out', 'Beep Out', and 'Alarm Out'. The main area contains a table for configuring email settings:

User 1	SUNGHO@DIGITAL-GTUM.COM
User 2	
User 3	
User 4	
User 5	
User 6	
Sender Address	HN4000@QVNR.COM
SMTP Mode	Off
SMTP ID	
SMTP Password	
SMTP Domain	
SMTP Port	25
SMTP Report Period	Immediately
Start Time	8:8:0
End Time	23:59:59

At the bottom right, there is a 'Send Test Mail' button. At the bottom center, there are 'OK' and 'Cancel' buttons.

The NVR will send E-mails to up to 6 defined addresses under certain conditions such as Alarms or video loss. The screen is where you setup the receiving address and address that the DVR will send from.

The mails can be set to be sent immediately an event occurs, Daily or Weekly.

Email Out

The screenshot shows the 'Email Out' window in the QVNR04P/08P software. The window has a sidebar with buttons for 'E-mail Registration', 'E-mail Out', 'Beep Out', and 'Alarm Out'. The main area contains a table for configuring email out settings:

Video Loss	Set
Alarm	Set
Motion	Set
Power Loss	Set
Smart	Set
Duration	5 sec

At the bottom center, there are 'OK' and 'Cancel' buttons.

The actions which cause an e-mail response can be defined within this screen.

The screenshot shows the 'Beep Out' window in the QVNR04P/08P software. The window has a sidebar with buttons for 'E-mail Registration', 'E-mail Out', 'Beep Out', and 'Alarm Out'. The main area contains a table for configuring beep out settings:

Video Loss	Set
Alarm	Set
Motion	Set
Power Loss	Off
Smart	Off
Duration	5 sec

At the bottom center, there are 'OK' and 'Cancel' buttons.

Beep Out

The internal buzzer can be set to sound on the following occurrences:

- Video Loss
- Alarm activation
- Motion Detection

Alarm Out



The Alarm output relay can be set to activate on the following occurrences:

- Video Loss
- Alarm activation
- Motion Detection
- Power loss

The duration of the relay closure can be set.

4. Local Search (viewing downloaded footage)



This allows playback of video which has been downloaded top the PC.

4-1. Search

Searches can be done by Date/Time, Even and Calendar.

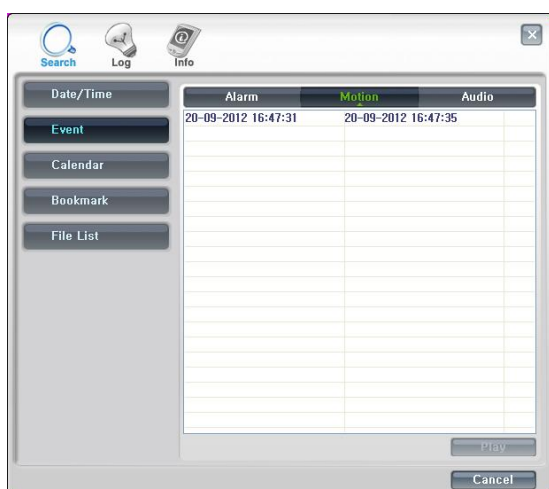
Date/Time Search



Hovering over the Date and Time bars will allow drop down boxes to select the required time and Date.

Once set, click Play.

Event Search



Choose the Event search box then choose the type of Event you are searching for, options are: Alarms, Motion or Audio.

Once the selection is made, a list will appear, choose the Event required and click Play.

Calendar Search



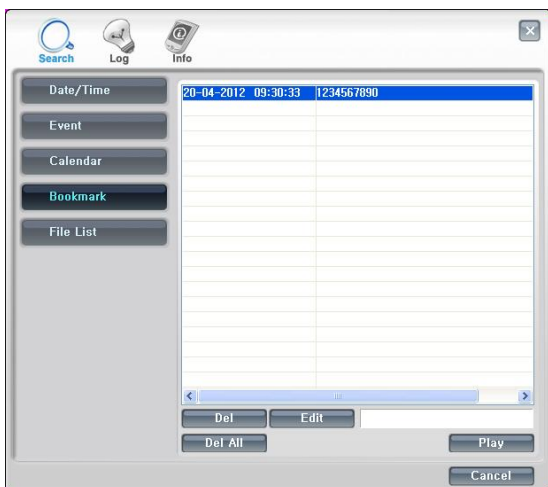
When the Calendar option is chosen this screen will appear, any day with recording available will be highlighted in Blue.

Select the required day.



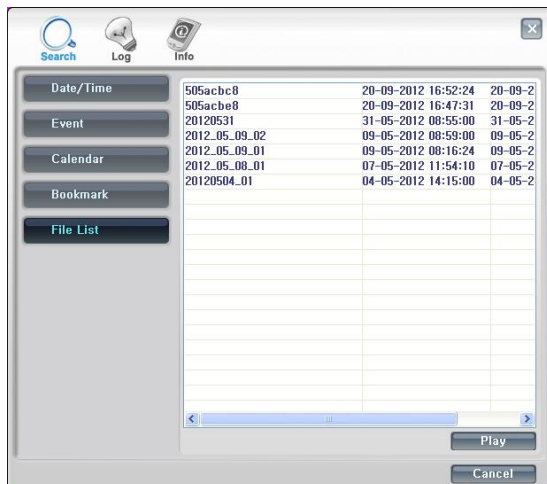
Any downloaded event s will be shown, click on the event, the red line will move to that event. Then click Play to review the recording.

Bookmark Search



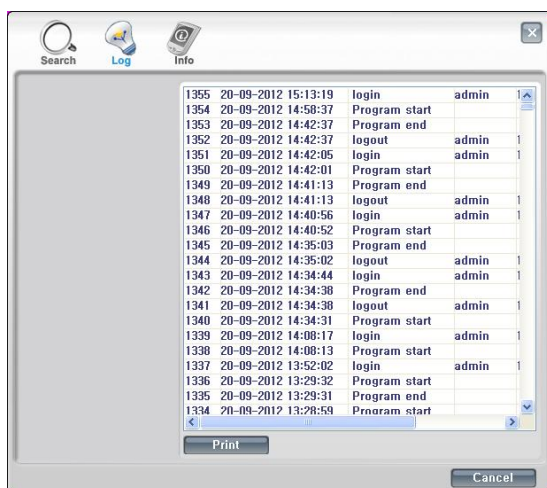
The files with a bookmark will be shown, select one of them. Then click Play to review the recording.

File List Search



The archive list will be shown in order of file name, select the file you wish to review. Then click Play button.

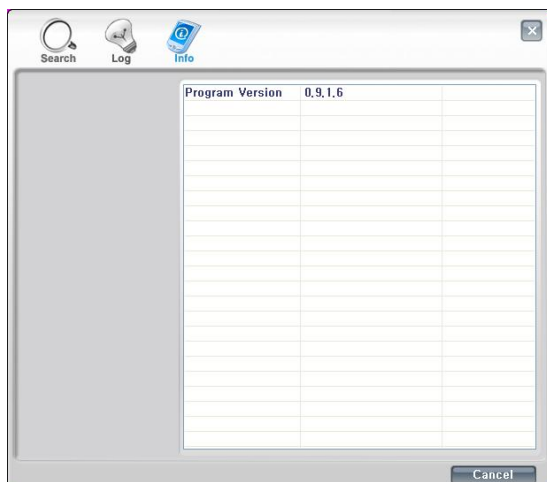
4-2. Log



Clicking on Log will display the log file from the unit.

This file can be printed, by clicking Print.

4-3. Info



Click on Info. This will display the version of the software client being used.

5. Local Setup

This allows the setup of the viewing of the software on the PC.



5-1. Global



This screen allows the following:

Draw mode to be set to YUV or RGB

Date Format to be set to: DD/MM/YYY, MM/DD/YYYY or YYYY/MM/DD.

Save Format, for the saving of stills as either JPEG, Bit Map or TIF.

Location for where stills are saved.

5-2. Opacity



The opacity or “boldness” of the OSD can be individually set per function. The lower the number the more see through the box.

5-3. Audio Buffer



Audio Buffer settings are there to adjust the audio over the network, this will compensate for different network speeds (LANs, WANs etc).

This can only be adjusted if the LIVE video is switched off.

Adjust each variable to achieve best quality video for Network bandwidth available, this is best done through trial and error.

5-4. Camera Name



Each camera can be titled, each title can have up to 32 characters.


6. Telemetry Control (Pan/Tilt/Zoom/Focus)




When PTZ button is being pressed, PTZ control icon will be pop-up on the live image.

6-1. Pan / Tilt / Zoom / Focus



When PAN/TILT button  is clicked the Pan/Tilt control appears, this allows Left, Right, Up and Down Control of PTZ



When Zoom/Focus button  is clicked, the control changes to Zoom in on the up arrow, Zoom out on the down arrow. Focus near on the left button and focus far on the right arrow.

6-2. Preset / Learn



Preset & Learn icon



The presets button can be activated by clicking on the centre of the control icon, the preset symbol will appear and the Preset selection box will appear.

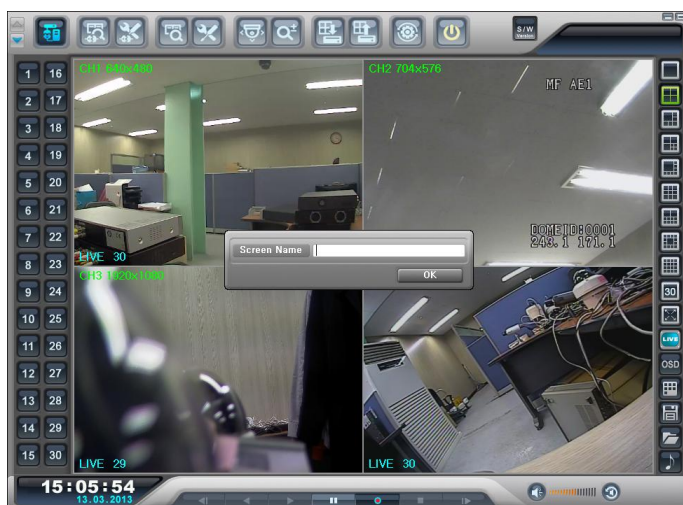
To save a preset, move the camera to the desired position then click "Set" followed by the desired number.

To recall the preset, click "Call" followed by the desired number.

7. Screen Position Save/Load

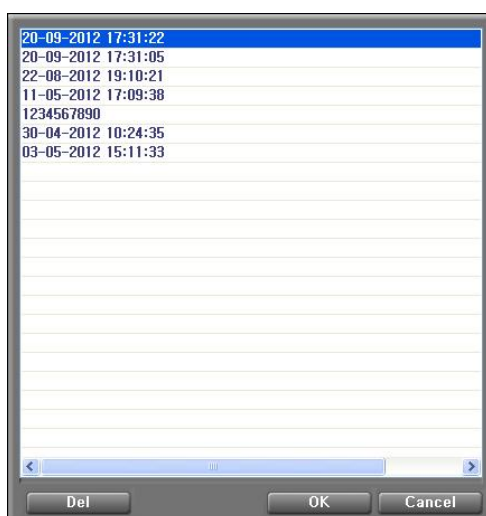


7-1. Screen Position Save



The positions of each channel on screen are saved into the registry and then restored the next time you open the client viewer software.

7-2. Screen Position Load

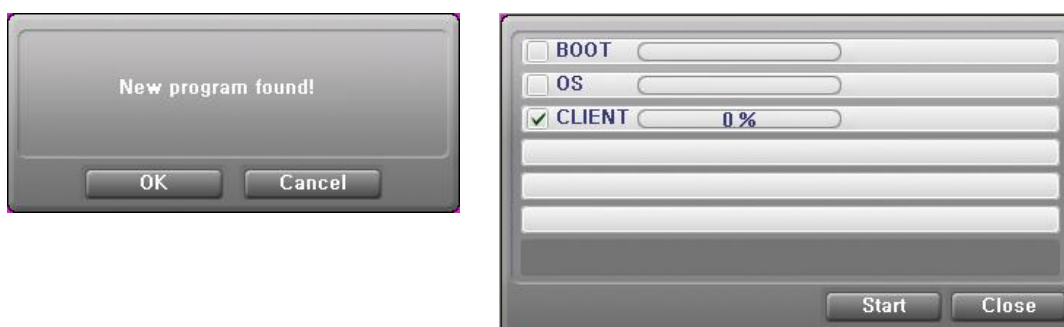


It is possible to edit & restore the screen position which is stored in the registry. Select one of the screen positions, then click OK button.

8. Firmware Upgrade



User can select Firmware Upgrade menu, if a new version of firmware exists in the C:/HNClient/Upgrade folder, then the message 'New program found!' will be displayed if there is no file then 'New program not found!' message will be displayed.



To proceed with upgrading press the OK button and select each firmware files to upgrade it to the system, by ticking the boxes.

Once the upgrade has been completed the following message will appear.



Next press the OK button to reboot the DVR, the firmware will only be applied completely once the system is rebooted.

Quit (Exiting Client program)



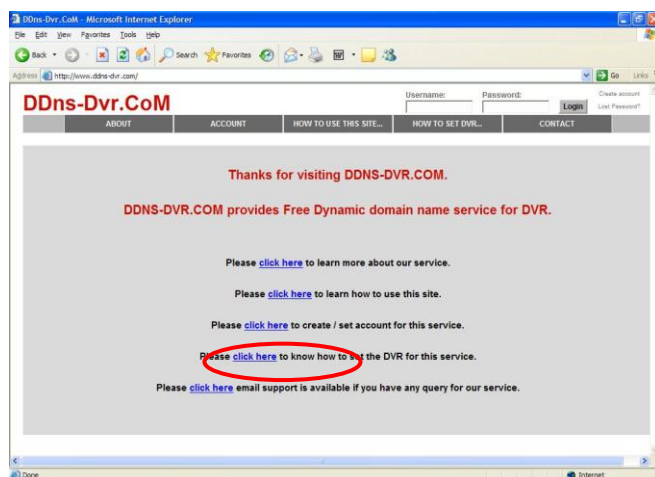
To exit the Client viewer program click the Quit button.

Appendix 1

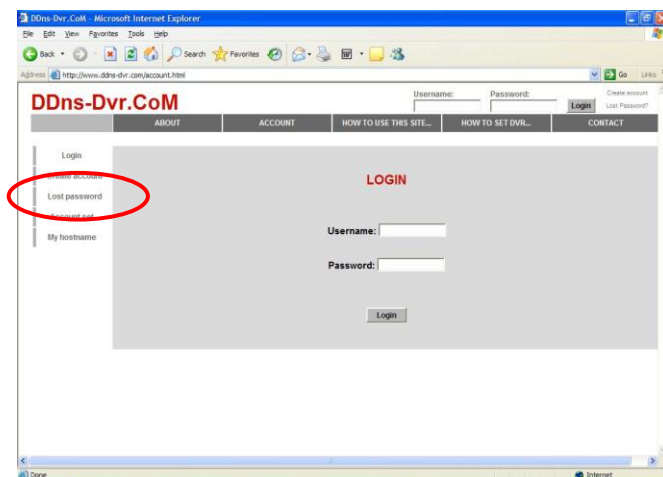
Dynamic IP (Supporting DDNS Server)

With DDNS Server, This allows a user to connect to the unit remotely without the need for a fixed IP address. (Please register your ID & Domain at www.ddns-dvr.com in which you can use their DDNS server as free of charge)

1. Visit www.ddns-dvr.com to get the DDNS user ID & PW as well as Host name.
2. Click to create / set account of “Dynamic DNS”.



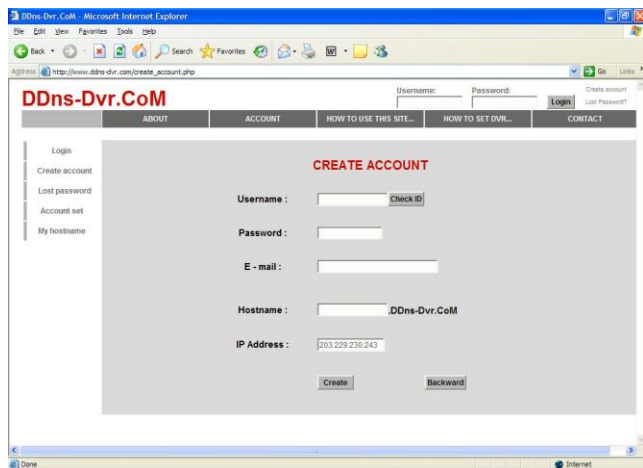
3. Select “Create Account” menu.



4. Create Account.

Fill in all blanks in order to create new account.

ID & Password will be emailed to you when the account is setup correctly.



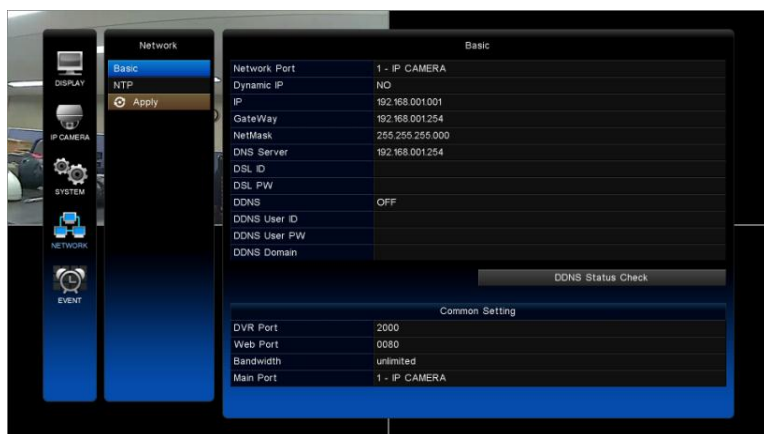
The screenshot shows a web browser window with the address bar displaying 'http://www.ddns-dvr.com/create_account.php'. The website has a navigation menu with links: ABOUT, ACCOUNT, HOW TO USE THIS SITE..., HOW TO SET DVR..., and CONTACT. On the left, there is a sidebar with links: Login, Create account, Lost password, Account set, and My hostname. The main content area is titled 'CREATE ACCOUNT' and contains the following fields:

- Username: [text input] [Check ID]
- Password: [text input]
- E-mail: [text input]
- Hostname: [text input] .DDns-Dvr.CoM
- IP Address: [text input] 203.229.230.243

At the bottom of the form are two buttons: 'Create' and 'Backward'.

Once the DDns-Dvr account has been setup, it is necessary to add the details in the Network menu of DVR.

Set up DDNS

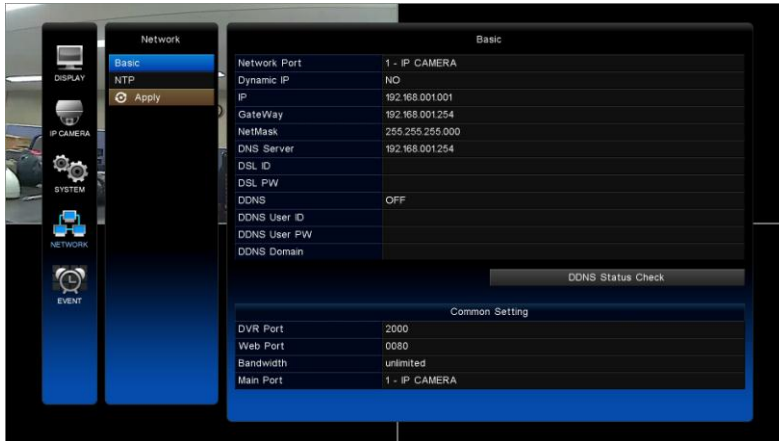


1. Change DDNS to ON
2. Input User ID
3. Input User PW
4. Input Domain
5. Click "DDNS Status Check". If it is "ok", click "Apply".

NOTE : In DDNS Setup, The Domain Name has to be filled in.
In DDNS environment, need to be changed DVR & Web server port, please refer to IP set.

Appendix 2

Setup for DVR port & web server port using IP sharing router (Port Forwarding)



1. To use IP sharing router, "Dynamic IP" should be set to "OFF".
 - ① DVR Port : This can be set to any number between 2000 to 65535.
 - ② Web Server Port : This can be set to any number between 2000~65535, as long as it is not the same as the DVR Port number.
2. Setup "virtual server" on IP sharing Router
It is for setting virtual server to forward IP which is allotted to DVR.
 - > For example;

DVR-1, IP : 192.168.10.107, DVR Port : 7000, Web Server Port : 7001

If DVR-1 is configured as above, the virtual server on IP sharing router is as follows.

 - ① PC Server Name : DVR-1(IP 192.168.10.107)
Protocol : TCP, Internal Port : 7000, External Port : 7000
 - ② PC Server Name : DVR-1 (IP 192.168.10.107)
Protocol : TCP, Internal Port : 7001, External Port : 7001
* For more detail, please refer to relevant IP sharing manual.
 - ③ 'DDNS' Setup on IP sharing router
DDNS configuration is not needed in case of fixed IP.
 - ④ To connect DVR-1 with Internet Explorer, <http://dvr-1.ddns-dvr.com:7001>
To connect DVR-1 with CD installer, <http://dvr-1.ddns-dvr.com:7000>

Appendix 3

Specification

Model			QNVR04P	QNVR08P
Video	IP Camera Input		4ch (4ch@1080p/720p/D1)	8ch (8ch@1080p/720p/D1)
	Output		1 HDMI , 1 VGA	
Audio	Input via network/Output		4/1	8/1
Sensor In / Alarm Out			4/1	4/1
Operating System			Embedded Linux OS	
Display	HDMI Resolution		1080p(1920x1080p) , 1080i(1920x1080i)	
	VGA Resolution		1024x768, 1280x720, 1280x1024, 1440x900, 1920x1080	
	Split Display		1/4 way	1/4/9 way
Recording	Compression		H.264 / MPEG4 / JPEG	
	Resolution (Pixel)		1080P(1920x1080) / 720P(1280x720) / D1(720x576)	
	Mode		Normal, Event(Alarm/Motion), Schedule	
	Rec Frame		120fps@1080p/720p/D1	240fps@1080p/720p/D1
Playback	Split Display		1/4 way	1/4/9 way
	Playback Mode		Normal, REW(*1,*2,*4,*8,*16) & FF(*1,*2,*4,*8,*16) Frame to Frame, Pause	
	Search Mode		Date & Time, Calendar, Event(Alarm/Motion), Bookmark	
	Playback/Live Frame		120fps@1080p/720p/D1	160fps@1080p, 240fps@720p/D1
Network	Network Interface		Ethernet x4 for IP Camera Ethernet x1 for Client PC	Ethernet x8 for IP Camera Ethernet x1 for Client PC
	Protocol		TCP/IP, SMTP, HTTP, DHCP, PPPOE(ADSL), RTP/RTSP	
	Serial Communication		RS-485 x2 (PTZ & Keyboard Control)	
	Web Browser		Internet Explorer 5.0 Higher (NVR Control or Monitoring)	
	Event Transport		E-mail notification when Event occurs	
	Viewing / User Access		PC Client, CMS, Mobile Viewer / Up to 25 users	
Archive	Interface		USB 2.0 x2	
	Archive Device		Network, USB Memory Stick	
Event	Motion Detection		Area : Programmable motion detection area for each camera Sensitivity : 10 Steps for each channel	
	Event Log		Up to 5000 events (Alarm, Motion, Video&Power Loss, Power&Record On/Off)	
Control	Controller		IR Remocon / Mouse	
	PTZ Camera		Control from RS485 Interface / Via Network	
Others	HDD		Support Max. 2 HDDs up to 6TB	
	Power Source	System	DC 12V/3.5A	DC 12V/3.5A
		PoE	DC 48V/1A	DC 48V/2A
	Power Consumption		40W	
	Operating Temperature		5~40℃(41~104F)/Max. 80% Non-Considering	

QVNR04P/08P installation and user manual

	Weight (Unit/Box)	3Kg / 4Kg
	Dimension (Unit/Box)	352(W)x252(D)x71(H)mm / 400(W)x340(D)x145(H)mm

